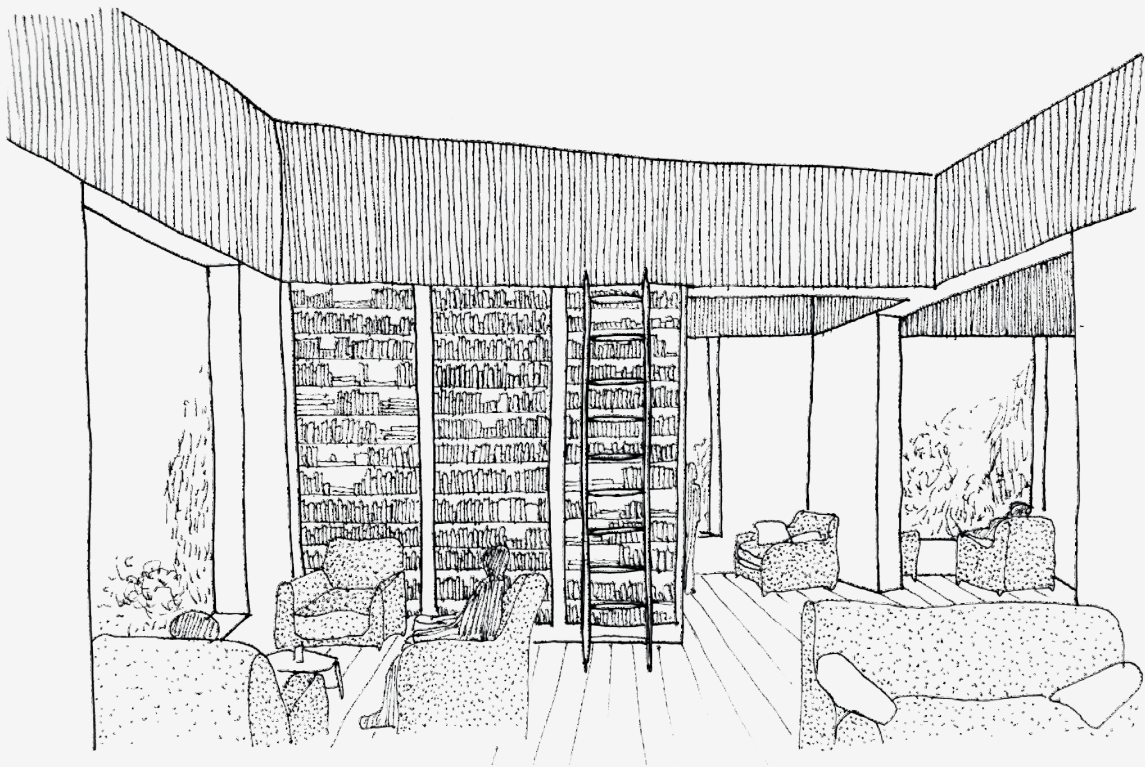
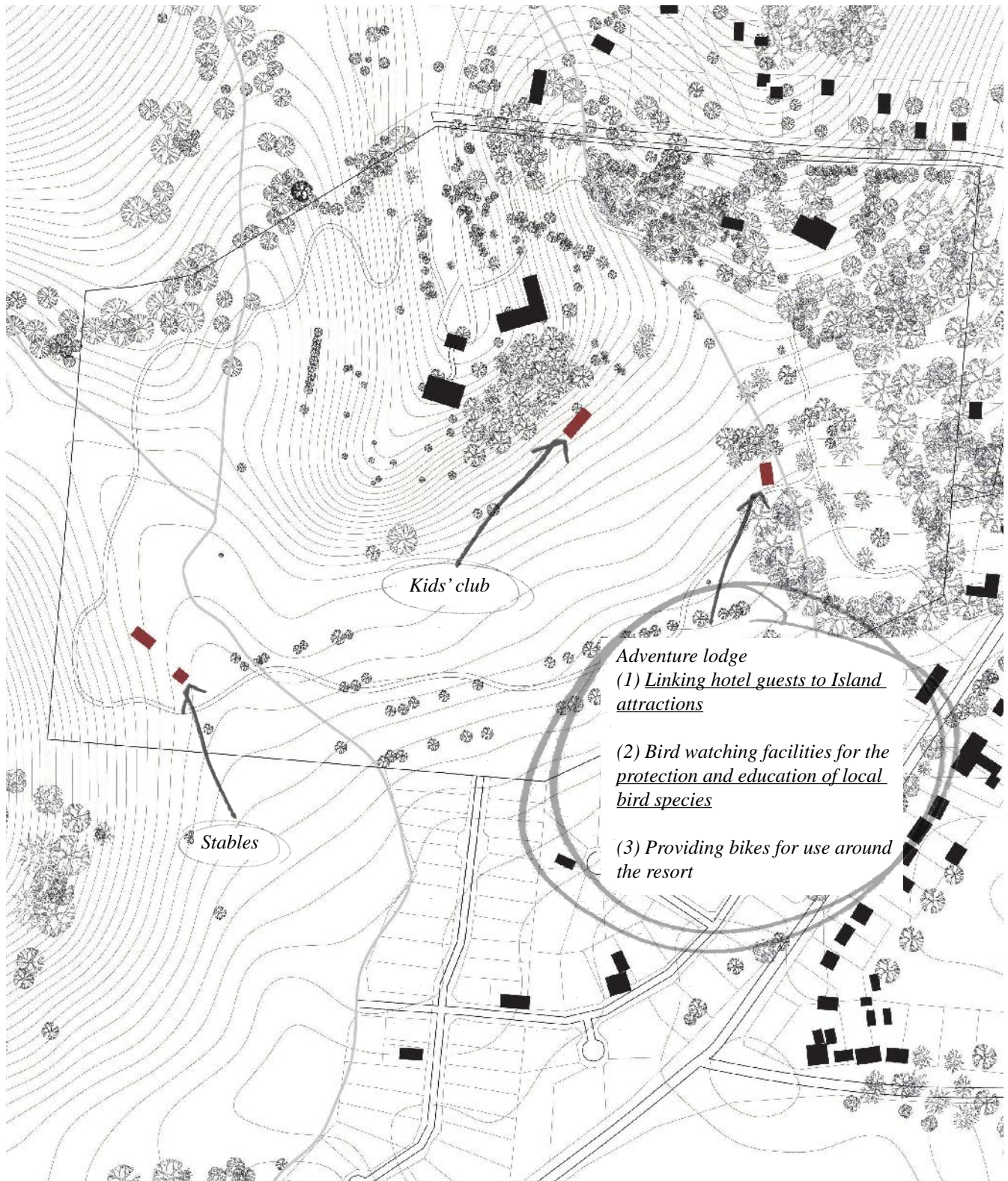


“Small, intimate spaces make strong connections to the outside”



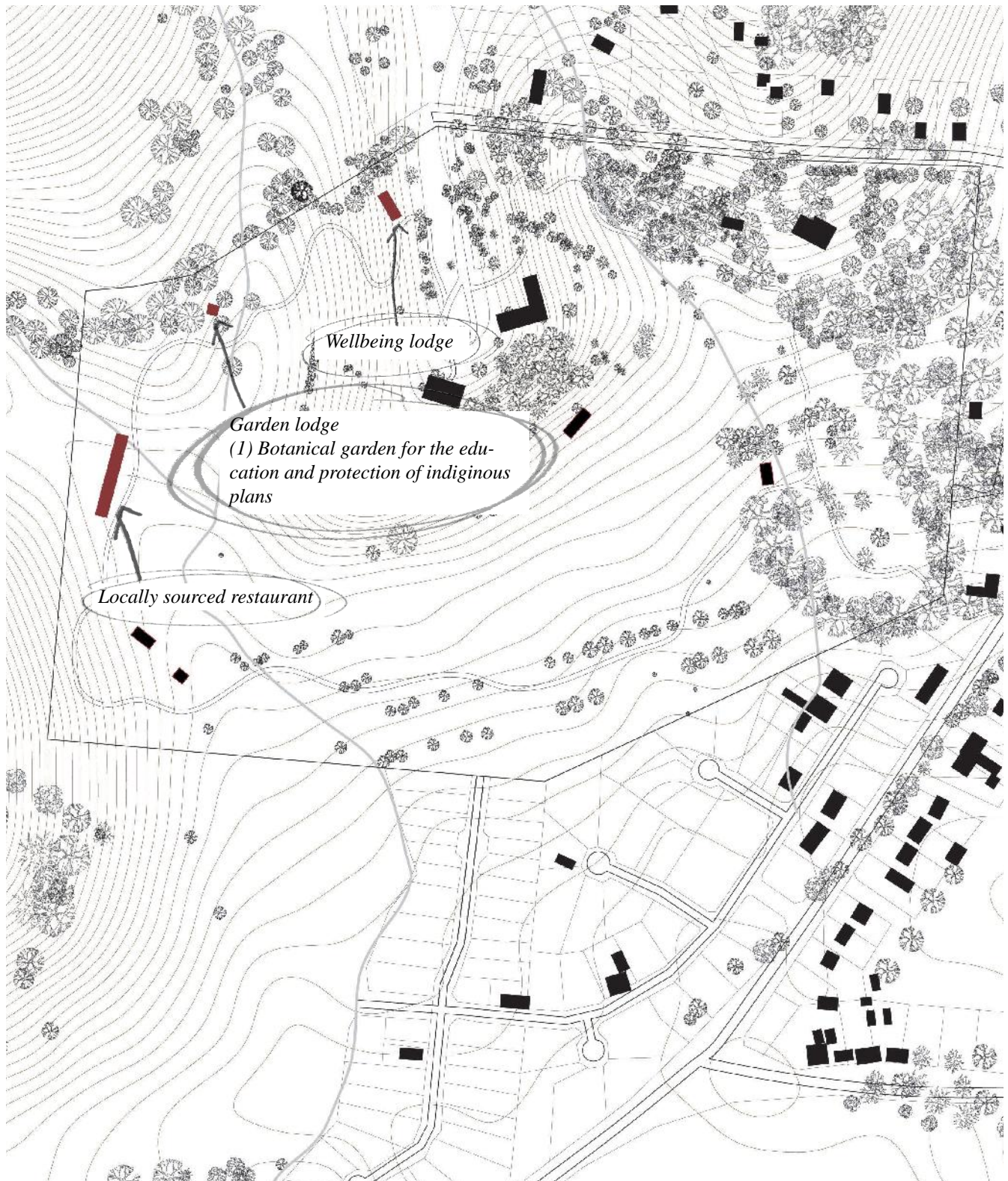


- (26) Lodges Description 4, PART I (note this is diagrammatic- the exact location and position of the lodges should be found in the drawing appendix)

N

*“Specialised lodges appeal to people of all ages
and all year round”*



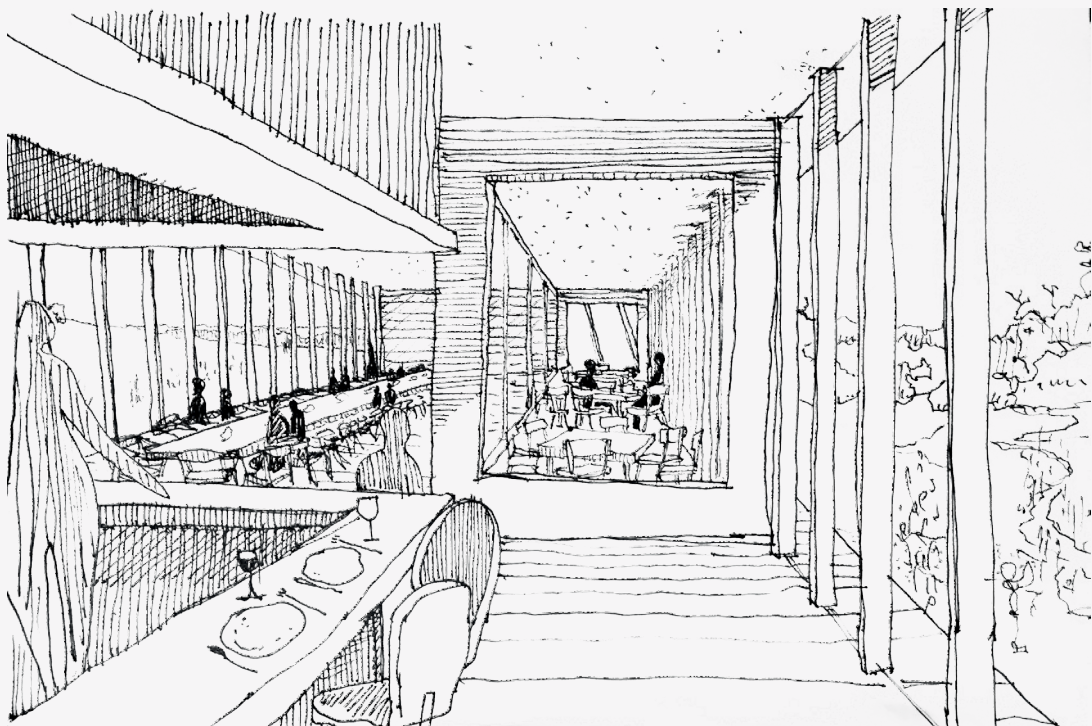


- (27) Lodges Description 5, PART I (note this is diagrammatic- the exact location and position of the lodges should be found in the drawing appendix)

35

14

“Program makes links with local industry - such as the locally sourced restaurant and kangaroo island wine bar”



A Range of Accommodation

The proposal offers a range of accommodation.

Cabins:

1 bedroom cabins offer seclusion for couples. These will be marketed to both the interstate and international markets, with particular focus on honeymooners.

Cottage:

4 bedroom cottages offer accommodation for larger groups, including family and friends. These will be priced attractively to draw in larger groups (from as low as \$100 per person / night), particularly in the intra- and inter-state markets.

Lodges:

Spacious Lodge suites within the lodges will be sold individually, aimed largely at the mid to high-end international tourist. With only 2 rooms per floor, these offer unique experiences to all guests, providing 180° views.

Hotel:

The Hotel will provide small boutique rooms at affordable prices. Most rooms will be for couples but will be convertible to kids rooms when needed. All rooms have a generous balcony and are aimed at visitors who will spend most of the day out on the island/ in American River.

- (28) Cabins, PARTI
- (29) Cottages, PARTI
- (30) Lodges, PARTI
- (31) Hotel, PARTI



(28)



(29)



(30)



(31)

06_ Assessment American River Lodges

PART I
September, 2016

06

ASSESS

This section describes the impacts of the resort assessed against criteria set by the Development Assessment Commission.

Impact Assessments

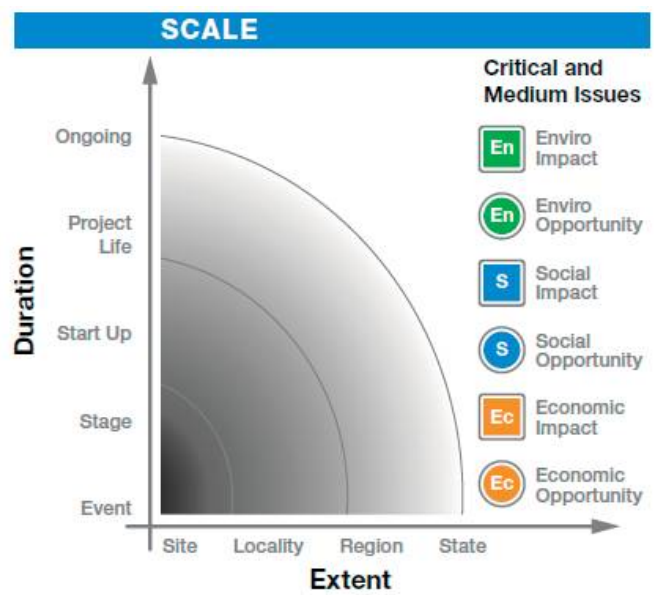
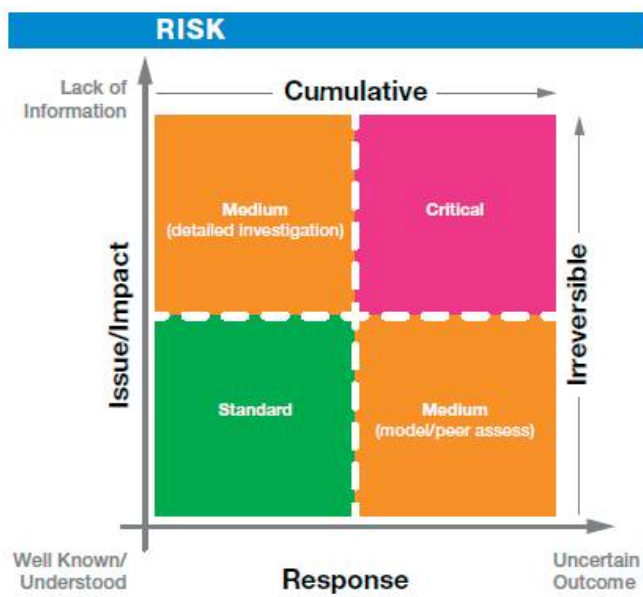
Impact assessment is an important tool that enables the consideration of projects that might otherwise struggle to be addressed properly or fairly under the 'normal' assessment system.

In setting these Guidelines, the Development Assessment Commission has considered the scale of issues associated with the project and determined whether they represent issues or opportunities. The potential impacts and issues have then been organised according to the level of work and type of attention required by the Applicant: either standard, medium or critical:

- Where the issue is well known and the response is well understood then the risk assessment is classed as 'standard'.
- Where work is required to address the issue but the risk is likely to be manageable with additional information then the risk assessment is classed as 'medium'.
- Where information about the issue is lacking and the response is unclear, the issue is classed as 'critical'.

The issues and impacts identified by the Commission as requiring standard, medium or critical level assessment are listed below. Each guideline includes a description of the issue/impact and a description of the action needed.

Thus, protection of the environmental values of the area is a key objective of the guidelines. However, this priority does not undermine the significance of other issues that are addressed by the following guidelines.



A2_Design

American River Lodges

PART I

September, 2016

ASSESS 1

DESIGN

The surrounding landscapes to American River create huge value for residents, especially the coast and Pelican Lagoon. The township has a 'coastal village' character that provides a high level of amenity for residents and visitors. This section describes the design qualities of the proposal particularly in creating an appropriate design for American River and explains the design team's process.

- 1.0 Design Summary
- 1.1 Visual impact
- 1.2 ODASA principles of Good Design
- 1.3 Context

1.0 Design Summary

The Hotel Resort

Rather than just one large hotel building, the hotel has been 'de-constructed,' and split into ten boutique lodges. This reduces the size of the buildings and their smaller footprints make them able to nestle into the landscape and protect the incredible and expansive views across the site.

The hotel is briefly composed of:

- 10 lodges providing resort amenities (such as restaurants, bars, spa and fitness centre)
- 108 Lodge suites in 9 of the lodges
- 20 4-bedroom cottages
- 20 1-bedroom cabins
- A stepped hotel building with 115 rooms and BOH facilities.

Key Design Considerations

The design of the hotel was developed to ensure the following principles were met:

- The program makes links to local industry and appeals to all ages, and all year round, from the locally-sourced food at the specialty restaurant, to the bird-watching at the conservation & actives lodge.
- The buildings protect and enhance local protected species, rather than disturbing them, through their careful location and small footprint.
- Use of pre-fabrication methods for the main structures to reduce time on site, to minimise impact on the local environment, and to ensure the economic viability of the project.
- Investigation of local products and trades to engage with local

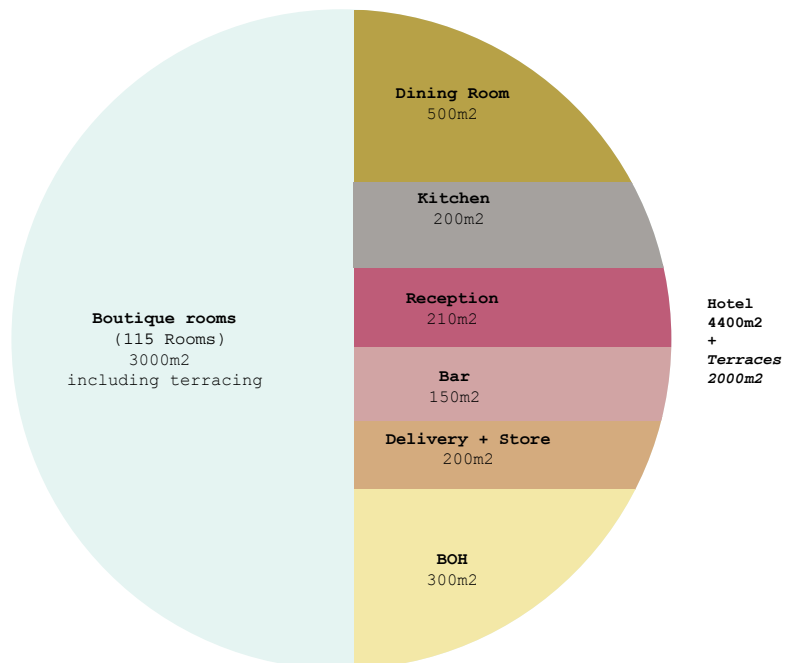
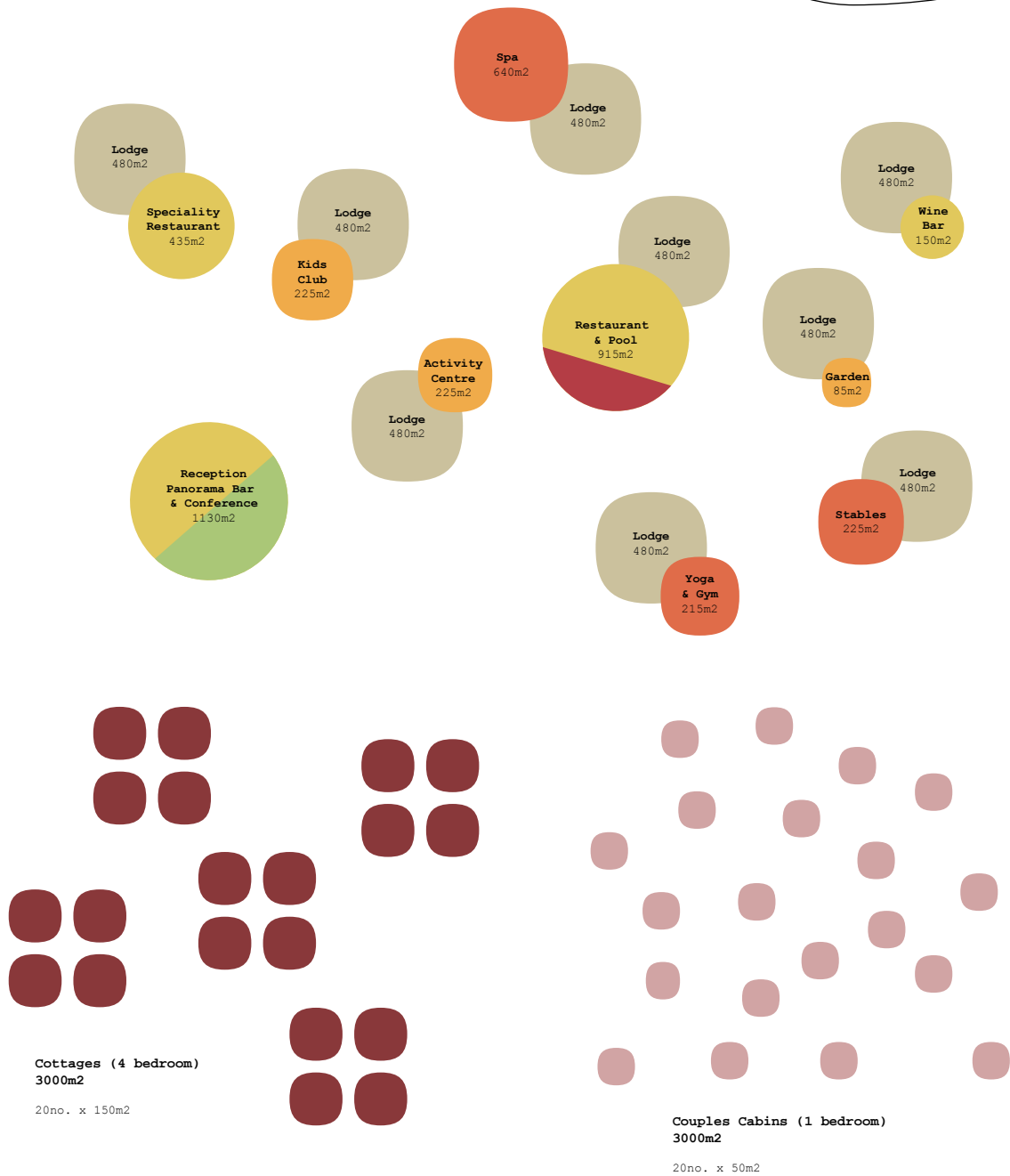
craft and KI economy for the finished elements of the scheme.

- The landscape plan re-introduces indigenous planting, as well as other landscape features; this has been developed with local flora experts.
- The site is to be experienced by foot not car, but a buggy and pedestrian route provides links around the site, and to the town centre, providing guests a more direct experience of the landscape.
- Engagement with passive design principles to minimize reliance on mechanical heating and cooling, through the use of verandas and other solar shading devices.
- The project aims to be as self-sufficient in water and energy as possible. Enlisting Solar (PV panels where possible, in discussion with BCA engineers) and storm water retention (capacity of 600,000L across site).
- Ensuring a sustainable life-cycle of building elements, investigating the potential for the re-use of prefabricated hotel rooms after their life-cycle at American River.

1.2 Evaluations against principles set by ODASA

The proposal is currently undergoing the design review process with the Office for Design & Architecture South Australia (ODASA). Design Review 1 occurred on the 17th February 2016, with a subsequent design review proposed to occur in October 2016. The associate government architect and a member of the Design Review panel were given a tour of the site by the designers, PARTI, on 3rd February.

The proposal was well received at Design Review 1 by the ODASA panel and the associate government architect. Extracted comments from their letter of recommendation are included overleaf (the full letter is available in Appendix N).



Site Layout & Access

The resort cover 33 hectares of varied topography, from degraded agricultural landed to densely covered wooded area. The composition of the resort is scattered to make use of the variety of landscape experiences presented by the site. The lodge locations have been carefully selected (being outlined in more detail below), whilst the cottages and cabins are gathered in clusters. The clusters of cottage make use of the different parts of the site, and form a mediator between the settlement of the American River township and the resort. The proposed main vehicular access for the lodges is at the northern most point of the site from Thomas Road, on the hill top, with car-parking provision being sheltered from view by existing vegetation.

The Hotel entrance is to be provided in the eastern corner, onto Red Banks Drive. This will also be the main service entrance (housekeeping, engineering, stores).

Hotel guests will park south of the hotel in the south west sector of the site. Although it is thought most hotel guests will not come by car.

Pedestrian paths and buggy routes will connect the different elements of the resort, with a new access route being proposed to connect from the southern corner of the site through the town to the harbour.

Landscaping

A concept landscaping design has been developed to re-vegetate and rehabilitate areas of the site. This has been divided into seven specific areas:

- Sparse native vegetation
- Agricultural grassland
- Shrubland (heathers)
- Lawn Areas
- Flower meadow
- Vegetable Garden

Kangaroo Island Botanical Garden

The proposed landscape plan focuses on the native plant requirements for the landscape. The existing landscape on the property consists of both natural and planted vegetation which in parts is extremely sparse and weed infested. The vegetation however provides feeding and nesting habitat for the Glossy Black Cockatoo. The area may also provide habitat for the Southern Brown Bandicoot. The re-vegetation of the site is proposed to be consistent with the native vegetation communities in its majority. The following key objectives are delivered in the proposed landscape plan:

- Rehabilitate the existing degraded land
- Enhance the Glossy Black Cockatoo and Southern Brown Bandicoot habitat
- Enhance the Kangaroo Island Narrow-leafed mallee woodland
- Enhance guests sensory experience of the site
- Maintain current views from proposal towards Pelican Lagoon & Eastern Cover
- Showcase unique Kangaroo Island native plants



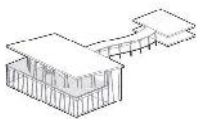
The lodges

Each of the ten lodges has a different programme on the ground floor. The character of each lodge is defined by its ground floor programme, offering the guests staying in each lodge a unique experience.

The location of each lodge was carefully chosen to reflect it's programme, along with the following key considerations:

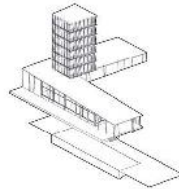
- Views: where located in an exposed location, the lodges have vistas across the vast scenery; where located in a sheltered location, an intimate atmospheres is achieved within the lodges.
- Solar: the lodges are orientated and adapted to the sun's path, to regulate solar gain, creating architectural form informed by the local climate
- Contours: the variety of the site, with hills and banks raising up by 30m in places, provides a series of different landscape experiences utilized by the scattering of the resort facilities

The following provides a breakdown of the lodges, programme and their location:



Reception & Panorama Bar (no hotel accommodation)

Located at the crest of the hill, central to the site, taking in the 270o views from Pelican Lagoon round to Eastern Cove.



Pool Lodge & Main Restaurant (with 12 hotel rooms)

Situated 50m to the east of the Reception Lodge, the restaurant, terraces and infinity pool step down the side of the hill, orientated to take in views of Eastern Cover.

Wine Bar & Library (with 12 hotel rooms)

Nestled into the densely wooded area to the east of the site, the setting is relaxed and elegant amongst the gum trees, with a clearing providing a framed vista towards Pelican Lagoon.



Spa (with 12 hotel rooms)

Located in a clearing near the eastern boundary of the site, the secluded location was selected to allow for an intimate atmosphere, set amongst a proposed meadow.

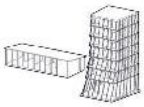
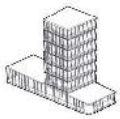


Conservation & Adventure Centre (with 12 hotel rooms)

Located on the edge of the exposed grassland for activities and near to the nesting habitats of birds in nearby gum trees for bird watching.

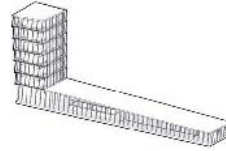
Kids' Club (with 12 hotel rooms)

Located close to both the pool lodge and adventure centre, the kid's club is located close to other family orientated lodges. It's setting is opens to the grassland for games and activities.



Stables (with 12 hotel rooms)

The stables and the lodge itself are split, being located in close proximity to each other. The lodge, providing a reception to the riding school is situated with a viewing platform over the paddocks, and back across the site taking in the valley & hill, and other lodges.



Specialty Restaurant (with 12 hotel rooms)

Set in the valley, the specialty restaurant is orientated to take in the views up the valley, whilst providing vegetable gardens to supply the kitchens.

Garden Lodge (with 12 hotel rooms)

Located in a small clump of eucalyptus trees in the north - western corner of the site, the variety of topography of this part of the site was selected to provide an appropriate location for a botanical garden, exemplifying Kangaroo Island and South Australian plant life.



Wellbeing Lodge (with 12 hotel rooms)

Perched on the western side of the main hill, the wellbeing lodge was selected to allow yoga and fitness studios to take in the expansive scenery.

Lodge Suites

The Lodge rooms have been designed to allow each guest a unique experience through the following considerations:

- Privacy of limiting 2 rooms/floor
- Views in 3 directions from each room
- Privacy of access through lifts entering directly into rooms
- Unique character of each lodge, with 12 rooms/ lodge and specific ground floor programme
- Rooms may be subtly themed to match character of lodge

Cottages & Cabins

The cottages & cabins have been designed to cluster in the landscape, providing alternative offerings to the hotel rooms and the lodges. The following principles formed key considerations to the design of the cottages & cabins:

- An aesthetic referencing the scale, form & materiality of the local environment
- Direct connection to landscaping
- Cottages to provide space for socialising
- Cottages to provide a flexibility of occupancy
- Cabins to provide privacy

Hotel Rooms

The Hotel rooms have been designed to be small but perfectly formed providing everything a visitor needs as efficiently as possible:

- Large terraces to protect from overheating and provide a location for planting.
- Stepping with the landscape to maximise views.
- Small rooms but large terraces and social spaces

(42) [Hotel Room Visualisation,](#) PART I

(43) [Cottage Visualisation,](#) PART I



(42)



(43)

1.1 Visual Impact

The proposed resort is located to the west of the township of American River, 0.5km from the water's edge and existing wharf area. The resort site covers 33 hectares of varying terrain; flat coastal land rises up to a hilltop of 30 metres. The most prominent visual impact of the resort would be from Buick Drive, the road leading into American River. From this point the site is clearly visible, as a piece of degraded open agricultural land, having been cleared of most vegetation. The site itself provides limited natural amenity to the public from this angle, being dominated by existing single-storey dwellings in the foreground.

The proposed buildings within the resort are scattered to minimize their visual impact. The 9 blocks of hotel accommodation have a small footprint creating slender lodges with a height lesser than the mature Gum trees that line the eastern and northern edges of the site. Given this, and due to the rise of the hill on the site, only 1 of the lodges will break the horizon line. As such vegetation will remain the dominant feature within the landscape. The cottages and cabins are designed to be of a scale and form comparable to existing dwellings in American River. Combined with

the proposed vegetation strategy, featuring predominantly indigenous species, a visual barrier will be created to the southern edge to the site, reducing any visual impact the resort may have from this exposed viewpoint.

From Sapphire Town and Island Beach due to the height and density of vegetation surrounding American River, it is expected that the development will be predominantly obscured by existing vegetation and the township of American River in the foreground. only 3 lodges in the resort will be in view. From Prospect Hill, a key tourist viewing point, that sits 6.6km to the south of the site, the development will be indistinguishable due to the rolling form of the landscape and distance.



(45)

1.2 Evaluations against principles set by ODASA

The proposal is currently undergoing the design review process with the Office for Design & Architecture South Australia (ODASA). Design Review 1 occurred on the 17th February 2016, with a subsequent design review proposed to occur in October 2016. The associate government architect and a member of the Design Review panel were given a tour of the site by the designers, PARTI, on 3rd February.

The proposal was well received at Design Review 1 by the ODASA panel and the associate government architect. Extracted comments from their letter of recommendation are included below (the full letter is available in Appendix N).

'In response to materials presented at the first Design Review session for this scheme, I strongly support the overall design approach for the proposal. I also support the layout that separates uses in discrete buildings, and the novel built form in response to the unique setting. This proposal has the potential to offer a benchmark for tourism development of this size and type in this sensitive environment on Kangaroo Island.'

The key issues outlined by the associate government architect were:

- Recognition and support for the proposal and it's opportunity to become a unique destination for American River, and Kangaroo Island
- Commendation of design team for voluntary public consultation with the local primary industry, residents and commercial interest groups within American River
- Need for development of interface between resort, harbour & township, being critical to support operational strategy

- Support for differentiation of the external form and material expression of the proposed prefabricated structures, along with consistency of the material palette to the separate structures that provides a unified visual identity to the proposal
- Support to treat the various elevations depending on orientation to maximise views and natural light; encouraged further interrogation to resolve this in accordance with the varied climatic conditions of the site

In response to these comments the 6 overarching design principles set by ODASA, are reviewed below:

- Context: the design of the lodges to have small footprints is respectful of the environmental sensitivity of the site, as is their careful positioning across the site.
- Durability: the proposal is being developed in consultation with hotel operators to ensure the buildings are fit for purpose, allowing for many years of use.
- Inclusivity: the proposal is focused on engaging the American River and broader KI community, in both the development of the proposal and the operation through opening the site up for public use of the facilities.
- Sustainability: through the use of prefabricated elements, the proposal will have minimal embodied carbon and little on-site waste, employing materials that allow for a sustainable operation.
- Value: the quality of the design of the proposal will provide an international benchmark on Kangaroo Island, creating a destination in itself, adding

value to the local community.
Beyond which the economic
outcomes of the project will
be of huge benefit to the local
community.

- Performance: the design
delivers the client's brief to
the benefit of the end user.
The experience the proposed
development will provide will
allow it to outperform competing
international resorts.

1.3 Urban public context & interface with residents, businesses and open space

The hotel site is situated on the edge of the township. As such it mediates between an urban context and a rural one. Currently there are no public spaces of note directly adjacent to the site and no distinct public footpaths or trails. A public road accesses the site on the west, which also provides access to neighbouring houses and un-built plots.

The existing buildings in American river are generally one or two level houses with some larger agricultural buildings particularly along the shoreline. The resorts density and building mass is sensitive to this mix. With small cottages and cabins scattered in the south of the site and larger lodge and hotel buildings positioned further north. When seen from Buick Drive these lodge buildings will appear slender and separated in the vast landscape, as agricultural silos do in the rural land beyond.

A proposed pedestrian route will connect the town center directly to the hotel. This will run along the edge of the oval, and through the existing wildlife sanctuary, along Buick Drive and into the south of the site. It is proposed that the

route will be incorporated into the landscaping strategy, including a redevelopment of the wildlife sanctuary, to create an enjoyable walking route whilst improving the existing public infrastructure. This path will also be used for buggy access.

For the resort, whilst appropriate security will need to be provided, it is not proposed that it will be a gated compound. Facilities within the resort, such as the spa and restaurants, will be open to the general public including neighbouring residents. Access to the resort will be from 3 points - to the south a pedestrian and buggy route, to the east for hotel guests, and to the north the main lodge and visitor vehicular access.

To the south, proposed dense native planting will provide mediation between the existing residents and undeveloped plots. Due to the existing gum trees to the east of the site, there will be little visual impact on residences along this edge. The micro hotel is the largest building footprint and has been positioned amongst the tallest trees. Its mass has been broken to step down the hillside and been designed with referencing to the scale, form & materiality of the local environment. With deep terracing on all sides.



(46)

A3_Economic American River Lodges

PART I

September, 2016

ASSESS 2

ECONOMIC

This section describes how the proposal will make a positive contribution to the commercial and tourism functions of Kangaroo Island and American River, reaping long-term benefits to the Island's economy as a whole.

- 2.1 Economic analysis
- 2.2 Tourism economy
- 2.3 Accommodation in American River
- 2.3 Island and local benefits
- 2.4 Employment opportunities
- 2.5 Mitigation against failure

2.0 Headline numbers

Investment

- Resort total investment of \$22M

Guests

- 115 hotel rooms
- 108 lodge suites
- 20 family cottages (80 rooms)
- 20 couples cabins
- Hotel capacity 646 heads (142,000 guest nights p.a.)
- Average Stay Length - 5 nights
- 45,000 unique visitors p.a.

Staff

- 200 Hotel jobs provided

Finance

- Projected daily spend per room (Accommodation, food, activities) - \$250-\$400
- Projected Hotel Revenue - \$18M P.A (based on 60% occupancy)

2.1 Economic analysis

The proposal will provide much needed good quality accommodation, in a unique manner with the very marketable 'lodges' concept. The '10 lodges' design strategy is a response to the long-term trend in tourism consumers away from large branded hotels towards a bespoke/ boutique offer. The authenticity this strategy brings by focusing the hotel offer specifically to Kangaroo Island strengths improves the hotel's long-term viability while enforcing KI's unique selling points.

The low season facilities, a first for KI, will be a huge boon for the Island's industry and give greater viability for year round staffing. Research suggests that in conjunction with the airport expansion (to enable charters) it is likely the proposed conference centre could be filled almost every week in the low season. With conference guests flying in from other Australian states.

The long term economic forecasts of the project have been examined and on the basis of the projected figures for accommodation rates is envisaged that the prime investment in the project will return a net 8% per annum. This is using conservative estimated of 60% occupancy and is strong evidence of the long-term economic viability of the proposal. With regular flights or charters to other Australian cities into KI airport we would expect year round occupancy to reach 75%. Therefore the optimum success of the hotel's contribution to the Kangaroo Island economy will go hand in hand with the delivery of the

airport expansion. The 40-25% average 'unoccupied' rooms do not suggest an 'overbuild' but reflect mid-week empty rooms that are inevitable, particularly in the low season. As the island tourism industry matures we would expect average lengths of stay to increase for all accommodation-raising occupancy levels further as weekend and overnight visits are replaced with week long trips.

The revenue (visitor 'spend') will have an overall 'multiplier effect' for the island calculated at between 2.0 and 2.5 based upon analysis of specific industry contributions as derived from 'The Economic Impacts and Benefits of Tourism in Australia - a General Equilibrium Approach'. The multiplier effect will spread the economic benefit to the rest of KI over time, providing an economic prediction that the overall increase in income on Kangaroo Island will be greater than the amount injected directly into the hotel.

As part of the aim to increase the contribution of tourism to the Island's economy, KIFA have identified increasing the number of overnight stays. The proposed resort will go some way to meeting the identified demand for higher end accommodation. This is particularly potent considering the current number of international and interstate 'day trip' visitors partly due to a lack of good quality accommodation. The proposal is identified as having the strong likelihood of converting 'day trippers' to several night stays due to the wide range of high quality facilities the resort will offer.

SARAH + BEN

Romantic holiday, Summer



2 person Villa

Hotel on West side of island

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8
	Travelling	Breakfast in hotel restaurant	Breakfast in hotel restaurant	Breakfast in hotel restaurant	Breakfast in villa	Breakfast in villa	Breakfast at hotel	
	Arrive	Beach	KI sight seeing	Horse back sight seeing	Pool	Beach	Check out	
	Lunch by pool at hotel restaurant	Lunch by harbour	Lunch out	Lunch out	Lunch by pool at hotel restaurant	Lunch at harbour		
	Afternoon by pool	Beach	Wine tasting	Horse back sight seeing	Spa	Beach	Fishing	
	Dinner in hotel restaurant	Dinner on harbour + drinks at harbour bar	Dinner on harbour + drinks at harbour bar	Dinner at hotel restaurant + drinks at hotel bar	Dinner at harbour	Dinner at hotel		

EMILY + TOM + KATIE + JAMES

Family holiday, Summer



	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8
	Travelling	Breakfast in hotel restaurant	Breakfast in hotel restaurant	Breakfast in hotel restaurant	Breakfast in hotel restaurant	Breakfast in villa	Breakfast at hotel	Breakfast at hotel
	Arrive	Beach	KI sight seeing	Kayaking trip	Adventure activities	Children: tour of vegetable garden + cooking course	KI sight seeing	Beach
	Lunch by pool at hotel restaurant	Lunch by harbour	Lunch out	Lunch out	Lunch by pool at hotel restaurant	Lunch at harbour	Lunch out	Lunch by pool at hotel restaurant
	Afternoon by pool	Pool	KI sight seeing	Pool	Spa	Beach	KI sight seeing	Check out
	Dinner in hotel restaurant	Dinner on harbour	Dinner on harbour	Dinner at hotel restaurant + drinks at hotel bar	Cook for kids + parents out for dinner at hotel restaurant	Dinner at harbour	Dinner in hotel restaurant	

LUCY + AMY + TESSA

Friends holiday, winter



Hotel on West side of island

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8
	Travelling	Breakfast in hotel restaurant	Breakfast in hotel restaurant	Breakfast in hotel restaurant	Breakfast in villa	Breakfast in villa	Breakfast at hotel	
	Arrive	KI sight seeing	Horse back sight seeing trip	Horse back sight seeing	Yoga classes	KI sight seeing	Check out	
	Lunch at hotel restaurant	Lunch out	Lunch out	Lunch out	Lunch at hotel restaurant	Lunch at harbour		
	Spa	Wine tasting	Wine tasting	Horse back sight seeing	Spa	Tour of gardens		
	Dinner on harbour + drinks at harbour bar	Dinner in hotel restaurant	Dinner on harbour + drinks at harbour bar	Dinner in hotel restaurant	Dinner out	Cooking class	Dinner at hotel	

2.2 Contribution to tourism economies

The contribution of the hotel proposal will be hugely beneficial to the Kangaroo Island Tourism sector, helping the island to exceed its future growth target of 49% by 2020 into an industry worth \$180 million (Kangaroo Island- Destination Action Plan 2012-2015).

In consumer testing, Kangaroo Island rates as one of the most appealing regions in South Australia to both the intrastate, interstate and international markets, but the number of people that actually convert to a holiday there is relatively low - 85% of people wanting to go there never do. In order to improve this statistic the American River Proposal aims to;

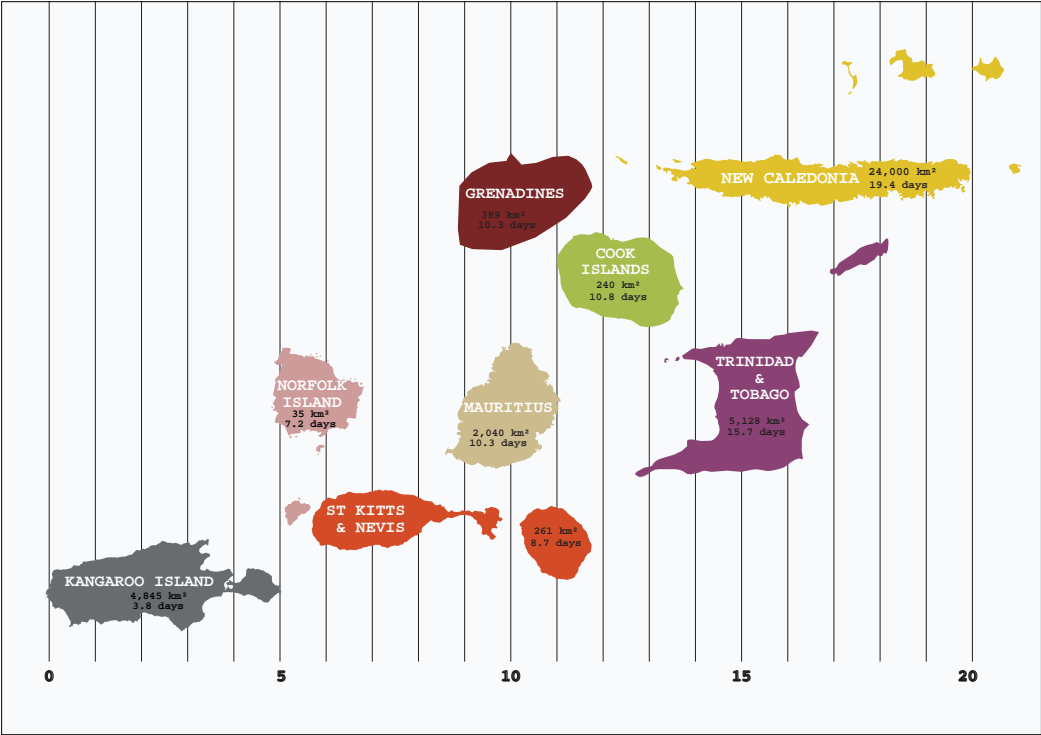
- Increase the diversity and awareness of the tourism offer particularly at the mid- to high-end.
- Internationally market the hotel and island offer in synergy with each other.
- In TOMM surveys events on the island rate well. The hotels 9 lodges, conferencing infrastructure and event management facilities on a 33Ha site presents the opportunity for KI events to grow as a year round opportunity.
- Provide 210 rooms at a 4.5* offer in a mixture of arrangements & price points.
- Targeting national and international visitors particularly high yielding visitors.
- Increasing the ASL from 2-4nights to 5-7 nights.
- Promote low season tourism, particularly through conferencing and event packages. (This is a particular focus in the South Australian Tourism Commission's Tourism Plan 2020.)

The proposal will provide much needed good quality accommodation options on the eastern side of the Island, in the perfect setting for experiencing the best the island has to offer on land and sea. The unique proposition of American River as a charming coastal town set in spectacular natural scenery with primary food production and active ecological conservation makes the tourism offer very viable and in line with the KI strategic development plan.

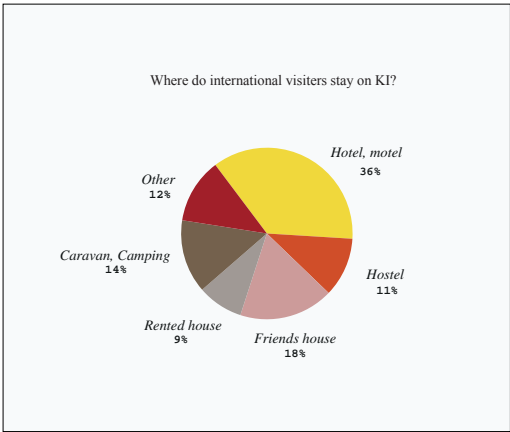
A key benefit of this proposal is its size; it allows the hotel to offer facilities found nowhere else on KI - such as a full SPA offering, conferencing, kids club etc. These offerings will be key to encouraging longer stays on the island. It also ensures the hotel can be financially viable year round, creating much less seasonal tourism.

(48) Average Length of Stay comparison, PARTI

(49) Accodation of International Visitors, PARTI



(48)



(49)

2.3 Accommodation in American River

2.3 Housing in American River

The proponent had offered to build some staff accommodation on the tourist resort site at American River to alleviate any pressure on housing in the township. However after careful and extensive consultation it was removed in favor of staff living in the township proper to help grow the community.

2.3.1 Employing local and growing the community

It is proposed that much of the hotels staff will be local islanders from American River or the nearby towns. For some jobs, there will be skills shortages on the island and some staff may need to be encouraged to move to Kangaroo Island to work on the resort. This will be a boon for American River community as young people and families move in for this employment. Rather than living in staff accommodation onsite, living in the township proper will help integration between current residents and the new ones. There was a lot of excitement during consultation, that American River would be able to field a Football team again on her Oval for the first time in years.

2.3.2 Raising property values

The influx of new residents will raise property rents and prices across American River. Good for most current residents. We would expect that the many un built subdivisions would be developed to meet the expected demand.

2.3.3 Phasing and developer support

There are risks that the current small township would not be able to provide staff accommodation for the entire resort, and it is possible that plot owners do not meet demand for rental properties by building houses. The phasing of the proposal has alleviated this risk; the initial phase would open with 50-100 staff, a number the river and surrounding towns could

accommodate. Then in later phases we would expect local landowners to meet increasing demand.

There is also a number of council owned plots in American River which could be developed into staff housing (in-line with later phases) if there were any negative pressure on accommodation in American River.

2.4 Economic benefit to KI, and other local businesses

The project will directly grow the Kangaroo Island economy by \$27M p.a.. In this section we will investigate what this means for the Island's economy.

The American River proposal, once built, is expected to make a significant positive contribution of the entire economy. This is predicted to be of 12.7%. Currently, the entire Island economy is \$185M, which would grow to \$212M.

Tourism is considered - correctly - a strategically important industry for Kangaroo Island, providing significant employment and economic output. Currently on the Island tourism has a direct contribution to KI's gross regional product (GRP) of \$36 million and, indirectly, \$98 million. This proposal would directly increase the direct tourism GRP by 44% to \$62M.

We would expect a similar multiplier effect (of circa 2.7) to increase GRP from indirect island tourism businesses. This would create \$42M of additional revenues for businesses not in direct tourism sectors increasing indirect tourism GRP to circa \$142M as a direct result of the proposal.

When taken together, the direct and indirect effects on GRP of the development could be as high as \$71M signifying growth to the KI economy of 38%.

This proposal has been designed to encourage the growth of existing island industry as well as new local businesses.

2.4.2 Existing Island industry

The design and development objectives behind the proposal have been developed to make best use of the existing businesses that exist on KI. Our proposals for a wine bar lodge, a cookery school & KI food lodge, conservation and activities lodge will all create close synergies with existing KI businesses.

We are investigating using KI produce in innovative ways in the construction and decoration of the Lodges, for example using locally harvested straw for its insulating qualities. These creative collaborations will be developed as the design progresses.

2.4.3 New American River businesses

The Conservation and Activity lodge in the hotel is designed to act as an information centre for local and island wide excursions for guests, many of these will be provided by new local businesses. This lodge is positioned in the South Eastern sector of the, closest to the Township, to encourage integration between the hotel and the town.

Early consultation between the design team and key businesses/stakeholders in American River have already lead to fruitful joined up thinking on future investment in the Town. Going forward, this proposal will act as a catalyst to give confidence to local businesses and the council to invest in the town. Taken together the staff (c. 200) and guests (c. 600) may increase the population of the town by 500-800 at any one time; so the business opportunities for local people are extensive.

This proposal, in line with the KI Airport expansion, will be a transformation for the Islands economy and should act as an exemplar for further investment into KI. Ensuring it fulfils its huge promise as the 'Galapagos of Australia.'

Increased visitor numbers will provide a boost to the American River economy and the increased spend will assure the successful development of more retail in the town centre.



(50)

2.5 Evaluate job creation and employment opportunities, construction to operation

Currently tourism contributes directly to 500 jobs and indirectly to 900 jobs on Kangaroo Island, that's 64.9 percent of total employment on the Island. However our research into the KI economy suggests that much of this is seasonal work (that is not year round.)

A cornerstone of our development proposal is to create sustainable year round employment in a range of areas. This is particularly important in retaining and attracting the younger generation on KI who commonly migrate to the mainland for opportunity.

The hotel proposal will create an additional 200 year-round jobs in the hospitality industry, increasing direct employment in hospitality on KI by 30%.

These jobs will be in a range of areas including 9 lodge management positions, catering, housekeeping, conservation, and event management. Staff will be trained to international standards of hospitality.

Furthermore, there will be an inevitable flow-on effect to the Island more broadly, creating other job opportunities in 3rd party

businesses. These positive economic effects will be experienced in goods and services where for example, local transport will be required, maintenance supplies along with food and beverage supplies will need to be delivered to the site.

We expect our hotel proposal to support an additional 270 indirect jobs on the island of which at least 50 will be in new businesses that will grow out of the opportunity created by the resort.

When taken together the direct and indirect employment created by the proposal we estimate at about 500. This is significant when set against current total island employment of circa 1385. Increasing available jobs on the island, mostly year round ones, by a third.

The planning and design of the project will engage up to 20 consultants and experts in different fields.

The construction phase will see jobs mainly in the construction sector. Our current estimations indicate 70-100 construction jobs at any one time over the course of the phased build. These will be advertised locally. It is likely some specialist/technical construction knowledge will need to be enlisted from the mainland or even internationally.

2.6 Mitigation against project failure

Work on the site, in particular earthworks, will not commence until full planning approval and financing are in place. This mitigates the risk of project failure between construction commencing and completion.

However in the highly unlikely event of the project ceasing during the construction, the following exit strategies would apply;

- Inventory is to be taken of all work carried out, work completed, work in progress and tasks to be done to carry out to completion.
- Stabilisation measures to be carried out to all exposed areas of the site, which would otherwise be threatened by erosion.
- Remove critical infrastructure items such as pump/sewage stations and gas supply.
- Demobilisation of construction of hotel and associated infrastructure including power and water connections.
- Re-vegetation will occur prior to construction commencing (to allow it to become established) so care will be taken to ensure the success of this native re-vegetation. That said, if the young native plants used are appropriately protected they should not need much maintenance once planted to thrive.



A4_Services & Infrastructure American River Resort

PART I

September, 2016

ASSESS 3

SERVICES

This section describes the proposals infrastructure provision, in particular power and water currently available and the need to upgrade existing infrastructure or find alternative sources.

- 3.0 Infrastructure introduction
- 3.1 Infrastructure Provision
- 3.2 Power
- 3.3 Water Management
- 3.4 Waste water
- 3.5 Storm water Management
- 3.6 Water Recycling
- 3.7 Infrastructure Upgrades

3.0 Infrastructure

The site is currently serviced with mains power supply and wastewater services, however there is no mains water supply in or around American River.

In conjunction with BCA Engineers, the following strategies are proposed for supplying, connecting and distributing power, water and wastewater to/from the site. Further details are provided in Appendix A.

3.1 Infrastructure Provision

Hydraulic Services

The hydraulic services infrastructure to the Hotel Precinct is proposed to consist of the following:

- Water supply as a combination of rainwater collected from the roofs and used for toilet flushing/irrigation purposes and potable water carted to site.
- Sewer from the site is proposed to discharge into Kangaroo Island Council sewer via sewer pumping stations with rising mains connected to the central pumping station. The Council sewer pumping station will be upgraded as part of the development to meet requirements of the Council to remain connected to the sewer network.

Sewage

American River is fully serviced by a sewer network. There is a private pumping station on the hotel site, connected into the council pumping station, which the hotel will connect to. Pumping stations will be provided near each building on the hotel site to connect to the main pumping station. To meet with the hotel capacity requirements the pumps within the existing private and council stations will need to be upgraded.

See Appendix A for further details.

Storm-water

Storm-water run-off and surface water is considered a valuable resource at this location due to the limited

available potable water. This project aims to implement the objectives of Water Sensitive Design through the following key strategies:

Water Conservation:

- Integrating water recycling measures from hardstand, roof and surface water to reduce demand for potable water.
- Encouraging water sensitive design which minimizes the reliance on water i.e. through diverting existing runoff to benefit vegetation, or introducing drought tolerant native plantings.
- Where feasible maximising groundwater recharge through promoting infiltration.

Improving Water Quality:

- Treatment of car parking and hardstand areas through bio-retention.
- Treating runoff from access roads and paths via vegetated swales.
- Treating roof-water such that it may be used as an alternate source of potable or grey water.

Maintaining and Mimicking a More Natural Regime:

- Managing stormwater onsite such that post-development peak flows do not exceed pre-development peak flows; though detention storage and soakage.
- Reducing flooding risk for downstream communities.
- Rehabilitation of the existing watercourse and riparian areas such that environmental flows are mimicked by reduction of the volume, velocity and peak flow of runoff contributing from the site.

Waste Management

Waste will be collected from each building on the hotel site and assembled at the main service building on the eastern edge of the site. From here it will be transported to a council operated collection point and disposed by the council either on the Island or on the mainland. Negotiations for

waste disposal with the council are yet to take place. It is expected that the Council's current waste facilities for the island will be able to absorb the waste generated.

Gas

LPG gas will be used solely within the kitchens. Storage tanks will be provided in close proximity to the two restaurants, and will be refilled periodically by LPG transport contractor. The gas tanks will be appropriately stored in secure facilities to meet the required regulations.

Power

It is expected the hotel will require 1000kVA. American river is already connected to the SA Power Network. Discussions with SA Power Network have indicated that sufficient electrical capacity can be supplied by the American River substation. Further details on correspondence with SA Power be found in section 3.3.

Solar energy is being investigated to provide additional and alternative power. If pursued Photovoltaic cells will be fitted to the roofs of the lodges where appropriate.

Communication

'Wireless NBN' is available in the American River area. Communication infrastructure and the appropriate technological devices will be installed across the site, connecting to the available NBN.

Fire Fighting

The hotel sits within a medium bushfire area; dedicated fire tanks, and fire pumps will be provided on the hotel site to comply with building code. Each lodge will be fitted with a hydrant and fire hose reels. The lodges are located away from areas of particular bushfire risk, i.e. rugged terrain and hazardous vegetation. By keeping the overall level of vegetation consistent with the predominant level of vegetation of the area, it is expected that vegetation clearance may be kept to a minimal.

The site will be accessible by emergency vehicles from 5 points, two on Thomas Road (entering to the north of the site), one on Red Banks Road (entering to the east of the site), one on Kestrel Crescent (entering to the south of the site) and one on Buick Drive (entering to the south east of the site). Whilst the ambition of the project is to require minimal vegetation clearance, vegetation will be cleared as necessary for fire vehicle access and bushfire protection. Indicative access routes for emergency vehicles have been drawn on the plan shown in Fig. 73 (p.221).

3.2 Power

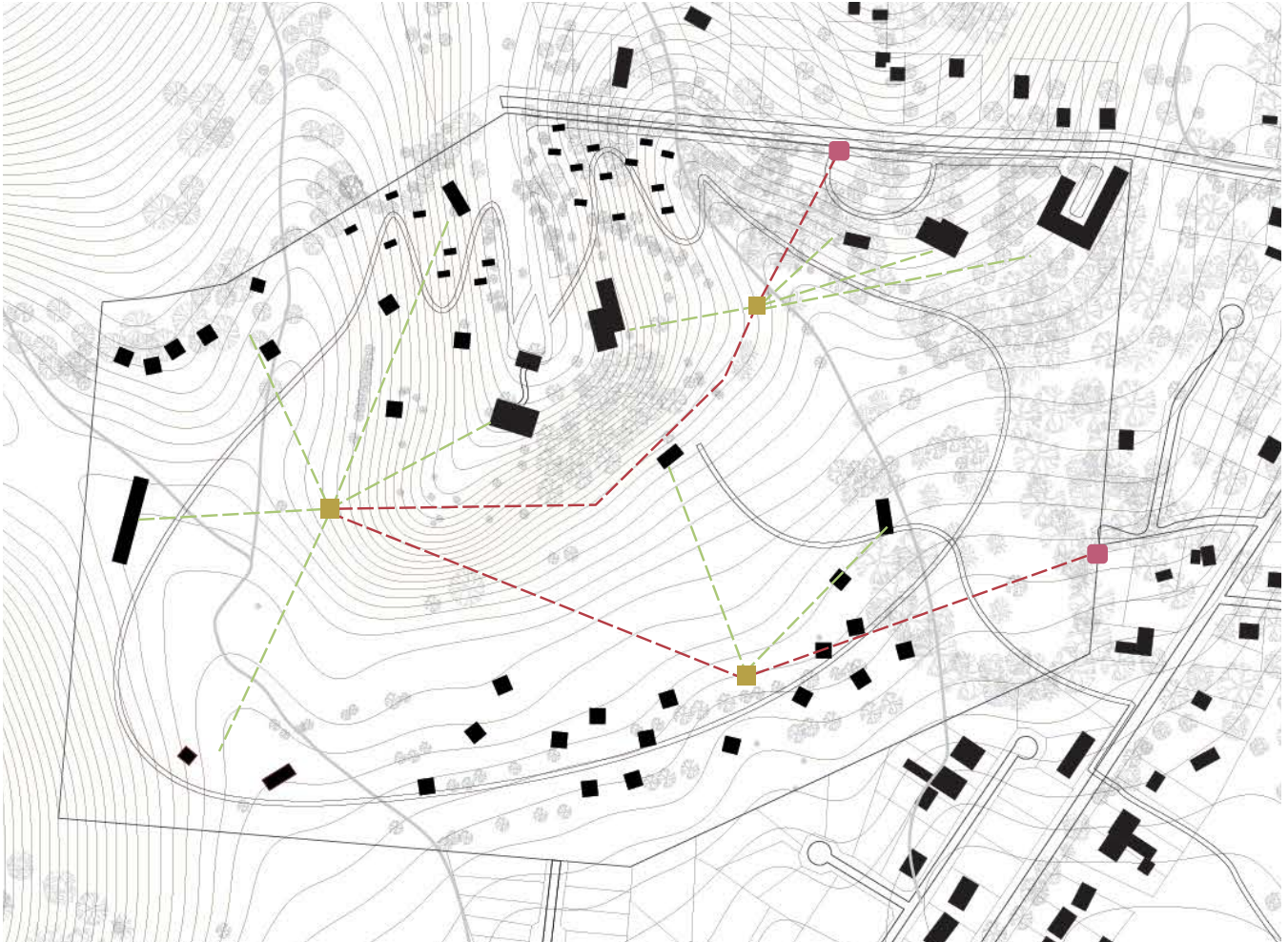
SA Power Networks are the responsible authority for the electricity provided to Kangaroo Island, with substations located on the western side of the island at Penneshaw, American River, Kingscote and MacGillivray. Through discussions with SA Power Networks, there appears to generally be enough electrical capacity available for the proposal at the American River substation, thus the development should not have any effect on existing consumers. However, the current electricity supply on Kangaroo Island is prone to the occasional power outage, due to the remote location, continual demand increases and the existing submarine cable supplying the island. Although the capacity has been advised as a non-issue, continual demand increase will mean that this will change over time and the occasional power outage is to be expected.

We have estimated that proposal will have an electrical maximum demand in the order of 1,000 kVA (this will have to be confirmed once the design has reached a more developed stage). The initial concept design includes three transformers that will be installed around the site, ideally in strategic locations to serve all the buildings in an effective and efficient manner.

Based on initial discussions with SA Power Networks the American River Substation has enough existing capacity to support our expected maximum demand. To supply our new connection it is expected that minor infrastructure works will be required by SA Power Networks, which should not affect the supply to current customers.

We propose that a High Voltage (HV) connection is provided by SA Power Networks for the purpose of a HV ring main to distribute power around the site. The ring main is likely to have two incoming connection points, one located on the north eastern boundary off of Red Banks Road and the other off of Alan Street on the west boundary, as both these locations have high voltage infrastructure in the vicinity.

Despite SA Power Network's advice that there is enough existing capacity in the American River substation, it has been considered advisable to include provisions for the occasional power outage, as there are other factors that could cause power outages beyond capacity. Backup power provided via diesel generators will be considered for providing power during the power outages. This is the most common and economical option for providing backup power to the site. An alternative backup power option would be to provide a battery storage system that is charged by either wind or solar power, though for the scale of the hotel precinct this would be an extremely costly option. Kangaroo Island achieves an average wind speed of 5.17m/s, just over the minimum requirement of 5m/s to make wind generated power feasible. However, due to moving parts, human and animal safety makes this less desirable. A PV solar system installed on the lodges could provide up to 490MWh Per year and will continue to be explored as an option as the design progresses.



- HV Reticulation
- LV Reticulation
- Transformer
- HV Incoming Connection

3.3 & 3.4 Water

The operation of a high-quality hotel resort and its associated facilities requires a consistent supply of water. American River currently isn't connected to a mains water supply, with local residents relying on rainwater harvesting tanks for their water supply. It is expected that the hotel will use a combination of rainwater supply and potable water carted to the site.

The proposal requires secure water supply of approximately 170,000 litres per day.

The base figure for total usage of water has been calculated from the published evidence on hotel water usage by Tourism Australia. The daily storage capacity has been calculated as Per the following: - 416 guests x 400 litres per day = 166,400 litres.

At the moment American River has no reticulated water supply. The neighbouring residences rely on rainwater collection and on private water supply delivered by truck. The truck can deliver 22,000 litres at a time. Because the water demand is considerable, water will use a reticulated supply off a secure source by phase three, most likely by connecting up to the SA Water network. For phase 1, truck delivery will be relied upon.

Rainwater supply

The average rainfall in the area is 320-660 mm per year. In order to capture all roof water, rainwater tanks will be installed to all buildings to the maximum capacity for potential collection (roof area x highest daily rainfall based on historical data). The capacity of each tank will depend on the roofed areas of each building, with the entire roof being used as rainwater catchment area. For efficiency and reduced

clutter buildings may share rainwater tanks with pump and reticulation systems to each amenity, providing water for toilet flushing and irrigation. The water used for toilet flushing is on average 15 litres per day per guest. With projected 420 guests the daily use of potable water could be reduced by 6,300 litres and irrigation use by 13,000 litres through the use of collected rainwater. The irrigation rate is 4.5 litres per square meter Per hour. For example 1,000 square meters of garden would use 4,5 litres x 3 hours x 1000meters = 13,500 litres Per day.

Minimising Water Use

To minimize water use, the following measures will be implemented:

- Use of 6 star WELS rated fittings within guest and staff amenities.
- Use of timed flow tapware in public amenities
- Incorporating of native plants and grasses into landscape design and use of subsurface irrigation to prevent evaporation.
- Provision of water meters for monitoring daily water usage and monitoring leaks within underground reticulation system.

Grey Water

Grey water collection and re-use has been considered for the project, however it has been discounted for the following reasons:

- The site is within a sewerage zone and sewer discharge does not require any additional pre-treatment
- Additional cost associated with maintenance, as well as installation of additional soil pipes and dedicated pump and risers.
- All soil fixtures will have a low flow rate (3/4.5 litres DR flush), therefore by taking grey water away from soil pipes, the sewer cleansing velocity of 0.8m/s may not be achievable. To allow for this the sewer pipe grades would need to be increased to prevent septicity thus taking sewer deeper into the ground.

Wastewater Management

The development will connect to the local reticulated sewer in the area (see Appendix A for further detail and plans of local sewer system). It is proposed to have one common sewer pumping station with remote sewer connection and rising main to the connection.

3.5 Storm Water Management

The Council's requirements for development control state that 'Detention and/or retention devices should be incorporated to maintain the volume and rate of runoff as near as possible to pre-development conditions.' It is proposed that storm-water runoff from the hotel precinct will be detained such that pre-development conditions are achieved and accordingly environmental flows in the watercourse are mimicked. As such the development will not increase the flood risk on downstream infrastructure and no upgrades on downstream storm-water infrastructure will be required. Further details are outlined below.

It is likely that the existing in-situ material will be relatively sandy and will have moderate to high infiltration properties; accordingly a geotechnical investigation will be undertaken to estimate the expected infiltration within the catchment. Where possible infiltration will be maximized for the purpose of flood mitigation, groundwater recharge and to benefit vegetation. Where the post-development peak flows from site cannot be managed completely through infiltration, stormwater drainage from the site will be discharged to a designated legal point of discharge either within the road reserve or to the existing watercourses within the site. Any legal point of discharge from the site shall be undertaken under advice from Council and where discharging to the adjacent watercourse shall be undertaken through a DEWNR permit for a water affecting activity.

Runoff from hardstand and car parking areas will be detained in basins such that pre-development peak discharge does not exceed post development peak discharge. It is proposed that, where feasible, opportunities to promote infiltration are maximized. Given the available open space within

the development it is proposed that detention storage is managed above ground.

Stormwater runoff from the internal access roads and paths will be managed as overland flows in vegetated swales for infiltration. Where the post-development peak flows cannot be managed through infiltration swales it is proposed that detention storage is incorporated at the southern end of the catchment. Roofwater is to be collected in above ground tanks for the purpose of re-use and detention.

The existing site has three significant external catchments that are contributing to three watercourses located within the site. Flood modelling will need to be undertaken to understand the inundation area and to ensure that access roads and buildings have adequate freeboard from the 100 year ARI storm event. As necessary diversion bunds may be incorporated along the southern boundary of the site to reduce the risk of any stormwater being diverted towards private property.

Storm water quality in Hotel Precinct

Council's requirements for development control state that 'Water discharged from a development should 'be of a physical, chemical and biological condition equivalent to or better than its pre-developed state'. The Council's Development Plan doesn't however provide specific stormwater quality criteria targets; however the minimum EPA target reductions for the treatment of stormwater are:

- 90% reduction in litter gross pollutants
- 45% reduction in average annual total nitrogen
- 60% reduction in average annual total phosphorous
- 80% reduction in average annual



- 80% reduction in average total suspended solids

It is proposed that all stormwater runoff from developed areas will meet or exceed best practice treatment targets; a treatment strategy will be adopted to promote natural water treatment processes within the development.

Hotel Precinct

Natural treatment methods for managing the quality of storm water from the hotel site, this may include wetlands, bio-retention basins and vegetated swales. The construction of artificial wetlands were discounted for this development on the basis that the development is very dispersed and the fraction impervious is relatively low; hence collection of a significant volume of stormwater to support a wetland is unlikely. Additionally the steepness of the site is not considered suitable for construction of a wetland.

Stormwater runoff from the hardstand and car parking areas are considered suitable to be treated in bio-retention basins. The bio-retention basins will be located on a relatively flat grade, being vegetated with nutrient removing species capable of tolerating inundation.

Stormwater runoff from the access roads and tracks will be managed in vegetated bio-retention swales. The steep site grades indicated that scour in the swales is likely and therefore erosion protection measures are to be incorporated within the swales such as rock check dams to reduce velocities and promote infiltration. The swales are to be planted with nutrient removing native species.

Water sensitive design principles will be integrated into all landscaping features, including but not limited to:

- Construction of raingardens/ depressed areas to divert and store runoff to benefit existing vegetation
- Use of permeable paving to treat

stormwater and promote recharging of the groundwater

- Planting of drought resistant species to reduce the requirement for irrigation

Erosion protection and rehabilitation measures are to be incorporated into the existing watercourse to reduce the risk of further degradation, and to improve visual amenity.

3.6 Water Recycling

Where water is to be harvested a water balance assessment will be undertaken to estimate the expected supply and demand to gain an understanding of the size of the storage required and the certainty of supply. Stormwater should be harvested in a way that minimizes health and environmental risks. As such any recycled stormwater scheme that is adopted will be undertaken in accordance with the Australian Guidelines for Water Recycling: Stormwater Harvesting and Re-Use, 2009.

The following opportunities for surface and stormwater harvesting have been identified:

- Stormwater collected from roof catchments will be treated to replace and or supplement the reliance on an alternate toilet flushing water source. It is proposed that retention facilities are provided as above ground tanks which may be individual or shared between adjacent accommodation buildings to rationalize the amount of tanks.
- Stormwater from the car parking and hardstand areas will be re-used for the purpose of irrigation. Stormwater from the bio-retention basins may either be stored underground for local irrigation purposes or as a submerged detention storage area where the bio-retention basins become self-watering during summer months.
- Further investigation will take place into the storing and using

the excess flows from the semi-permanent watercourses for the purpose of irrigation and or stock watering. Where water is collected from external surface water catchment consideration will be given to maintaining environmental flows.

Taking water from a prescribed watercourse is considered a water affecting activity and as such any activity will be undertaken through the relevant approvals process with DEWNR.

3.6 Infrastructure Upgrades

The need for infrastructure upgrades are summarised below. Through consultation with suppliers and the council it is expected that minimal upgrades will be needed, and the impact on the Kangaroo Island community will be minimal.

Power

SA Power Network have confirmed the existing supply has the capacity for the increased use proposed.

Water

Currently there is no water infrastructure surrounding the site, and no proposal to change this.

Sewage

The area is "fully sewerred" and for the proposal to be connected the council have advised that the pumps within Council's PS1 (refer to plans in Appendix A) will have to be upgraded to greater capacity (exact capacity will be advised by Council). This will be undertaken as part of the development and should have no impact on the American River or broader Island community.

A4_Society

American River Lodges

PART I

September, 2016

ASSESS 4

SOCIETY

This section describes the proposals impact on the community of American River and Kangaroo Island:

- 4.0 Society Introduction
- 4.1 American River Community
- 4.2 Community Value of Site
- 4.3 Islanders & American River
- 4.4 Local Employment
- 4.5 Existing Businesses

4.0 Society

The proposal is being developed within the existing settlement of the American River Township. The township has its challenges, particularly around employment for younger people, but community is not one of them! The River has a fantastically vibrant and varied social fabric with large groups of the community grouping together for shared progress. The Shed, the RIG and the successful funding and construction of tennis courts are just a few examples amongst many that are testament to the small community's resilience and efforts.

While all forms of development have impacts and generate change, it is important that the proposal makes as large a positive contribution to the social and community fabric of American River and Kangaroo Island as it will economic.

The Design team, PARTI, undertook extensive and informal public consultation prior to and during the designing of these propositions in order to try to understand the dynamics of the River community. Visiting the River on 5-10 separate occasions over the 5-month design period and undertaking a 100+ page feasibility study (Appendix O - The Island, PARTI). This study was fundamental to informing the development of a proposal appropriate to the social dynamics of the community.

4.1 American River Community

American River sits on the shores of Eastern Cove at the entrance to the tidal Pelican Lagoon - Sanctuary Zone within the Encounter Marine Park. The River has a permanent population of approximately 180 although there is a large number of residents who use the river regularly as a second home. There are about 180 dwellings in the river and exact data is not available on the number which are permanent residences and which are holiday

homes. Taking the average household occupancy on the island from the most recent census to be 2.2, we can assume that about half the current dwellings are holiday homes/lets and around 90 are permanent dwellings. The town struggles economically, due to a lack of employment opportunities and a high percentage of resident retirees.

It was the birthplace of tourism on Kangaroo Island when Nils Ryberg, a Swedish born immigrant, settled at American River in 1884 and built a house exclusively for tourist accommodation. Today, it feels off the beaten track of the modern coach driven tourist routes through the island.

It is, however, the centre of Kangaroo Island yachting, with a large number of visiting yachts using its sheltered anchorage every year, particularly during the summer months. The annual Ballast Head Yacht Race, (believed to be the first Australian yacht race of the year), is held in Eastern Cove on New Year's Day and the town is home to the Strawbridge Pointers - a popular local sailing group.

As mentioned community groups are numerous and varied with strong leadership as well as impressive volunteering. Activities range from the running of community 'Shed' sports club, building a 30 foot wooden schooner, to the construction of tennis courts.

As well as some commercial fishing activities there is a commercial Oyster farming facility; Kangaroo Island Shellfish farm 50,000 dozen Pacific oysters a year, from April to December. About 90 Per cent of oysters are sold under a premium label to wholesale markets from Queensland to South Australia, with the remainder sold in their shop in the town.

(56) Community effort secure grant for tennis courts,
Kangaroo Island Council

(57) American River Sailing race, The Islander



(56)



(57)

4.2 Community Value of site

The hotel site is currently used for agricultural grazing. An attempt was made to create a local golf course around 15 years ago but this failed to take off. Other than childhood memories of occasionally exploring the site locals rarely, if ever, use it actively today. The site can be seen from the road (Buick Drive) on the way into the Township. Surrounded by bush and agriculture, the town is home to many species of birds, both on the water and in the bush. The endangered red-tailed Glossy Black Cockatoo is frequently seen in the town.

4.3 Kangaroo Islanders relationship with American River

The Township of American River attracts visitors for sailing, fishing, wildlife and seaside recreation, however it lacks any major draw to entice them to extend their stay and attract new visitors to the town. The RIG initiative is premised on the fact that American River is steeped in maritime history, skills and enthusiasm, which it is felt should be developed for economic and community benefit.

The hotel has been designed with world-class and varied facilities found nowhere else on the island, potentially providing a huge amenity to the broader spectrum of islanders. Unlike most 'high-end' luxury hotels that trade on exclusivity and isolation this proposal has been designed to integrate with the Township. The idea being that Islanders can enjoy the hotels facilities, be it the restaurants, bars, pools, spa, stables etc. as much as guests.

4.4 Local Employment

As discussed in greater detail in the economic section of this report the proposal has the predicted direct full time employment of 200 people. There is also likely to be an additional 200-300 jobs created on the island indirectly (for example in businesses that deliver goods and services to the hotel).

The proposal will generate significant local employment opportunities in a huge variety of roles including hospitality, catering, housekeeping and hotel management, grounds maintenance and landscaping, conservation and marine based activities, with a particular focus on training locals to international standards.

The design team's vision to create 9 lodges (rather than one large hotel) aims to create a tier of 'lodge manager' positions- these would be aimed at employees with local knowledge/ insight into the Island to make guests stays authentic. Indirect employment of islanders is likely to be extensive, particularly in primary production; The KI food lodge will have a daily changing menu of local produce for example!

The building of the project will create a range of employment opportunities, a manageable proportion of which it is anticipated will be met from Island resources and labour. It is envisaged that up to 100 full time jobs will be engaged at the height of the projects construction while a base level of 60 will be working on the project at any one time.

Given the average age of American River's small population it is expected that many jobs created will need to be filled from further afield, across the Island and as necessary from the mainland.

It is difficult to predict the exact composition of the workforce. However, after listening to informal public consultation it has been decided that all 200 staff should live in existing townships rather than be accommodated on site.

The proponent is working on ways that local land owners can develop their allotments alongside the hotel investment helping to make those smaller grain developments financially viable and spreading development reward.

In addition to this it is likely that the vast majority of indirect employment will be KI locals (200-300) and so the proposal will likely create 250-350 jobs for local Islanders.

This will be a welcome boost to the KI community and likely lead to the Township being able to reinstate its Aussie Rules team. These new residents of American River will be permanent (rather than seasonal) and as such should integrate well into the existing welcoming society. We would expect that many will fall in love with the lifestyle offered by the River and choose to settle there long term.

The proponents have had early strategic discussion about supporting local landowners to develop their vacant allotments to accommodate these new residents in the community. The exact mechanism for this is still under discussion but it is a very feasible way of using the proposed development as a catalyst for other investment in the River.

4.5 Impact of Proposal for Existing Businesses

There are a number of existing tourism businesses operating out of American River including hotels and guest-houses, and limited additional tourist amenities such as the Deck Café. The existing accommodation offer in American River is typical of the Island, mainly 2-3 star, dated accommodation costing about \$100-200 per night.

From informal consultation they report excellent high season occupancy, particularly in holiday periods, but this business falls away in the winter months. Anecdotally one guest-house manager informed us that 'you have to make all your bread in the 6 month summer' because the town is almost empty of tourists for the other half of the year.

Our proposal is for a 5* facility to be operated at a 4.5* level of service. In other words the offer we are proposing would be a higher-end offer than currently exists in American River. While it is likely that our proposal will compete with the existing guest houses in the high season to some degree; current high occupancy rates and the likely effects of increased demand for accommodation in American River as a result of the improvements in the town center would suggest that there will not be a negative affect on the viability of these businesses.

By pitching the hotel at a different market to the offerings that already exist in the river we predict that we will generate new business for the River rather than 'mop-up' the business that currently exists. Furthermore the facilities offered by the proposal will improve the offer of all local tourism businesses.

More directly, the proposal has the facility to host conferences for 400 and potential outdoor events and festivals for up to 1-2000. These

conferences and events will drive the low season trade for the hotel but many of the guests would need or choose to stay elsewhere in the River.

By creating a dispersed series of lodges and cottages that link through directly to the town centre it should alleviate the concern that the hotel will become a 'silo' for guests. The intention is that the hotel becomes an extension of the town; the 33Ha site will be open to locals during the day, meanwhile guests will be encouraged to experience the town daily and use the other businesses that will integrate into it.

The additional visitors will also increase demand for a range of tourist services including hire cars, personal drivers and guides outside of the resort, dining facilities in both American River and elsewhere, local produce including local wines, foodstuffs, Island souvenirs, fishing and wildlife excursions, amongst others. We expect the impact on tourism related business in American River to be hugely positive as a result of the proposal, particularly in driving business and activity through the low season.



A5_Aboriginal Heritage American River Lodges

PART I

September, 2016

ASSESS 5

ABORIGINAL HERITAGE

This section describes how the proposal is being developed in a manner respectful of Aboriginal Heritage and Native Title rights and interests.

- 5.0 Aboriginal Heritage Introduction
- 5.1 Measures to Identify Aboriginal Heritage
- 5.2 Managing Risk
- 5.3 Native Title Issues
- 5.4 Native Title Claimants

5.0 Aboriginal Heritage

A preliminary archaeological and cultural heritage investigation was undertaken by Dr. K. Walshe, Principal Researcher, Archaeology, SA Museum. This investigation assessed the implications of the proposed development in light of Aboriginal Heritage, Native Title rights and interests. The investigation involved both a desktop survey of registered or reported heritage sites, places and features in the proposed development area and a ground archaeological survey of the site. It was carried out with regard to the relevant legislation and South Australian and Commonwealth heritage registers.

Databases searched:

- The South Australia Heritage Places Database
- Australian Heritage Database
- The Australian Places Inventory
- South Australian Museum Archaeological Site Cards

The on-site survey was carried out on 17th March 2016. The findings of the on-site survey and desktop study are summarised below. The full report can be found in Appendix E.

Current Status of Aboriginal Heritage of the site:

- No records of Aboriginal sites or objects and
- No finds recorded during a pedestrian survey across the site.

Potential Status of Aboriginal Heritage of the site:

- Very low probability of Aboriginal sites or objects, including burials, to be found during earth moving.

Recommendations for Aboriginal Heritage in the progression of the proposed development:

- Identify consultative party prior to construction or earth moving works and
- Develop into the on-site induction a response to any finds, including burials.

5.1 Measures to Identify Aboriginal Heritage

Database Search & On-site Survey

A search was made of the South Australia Museum (SAM) Archaeology Site Cards, the SAM Archaeology database and the SAM Human Biology database. This search did not reveal any listings for the proposed development area. The Register of Sites and Objects administered by AAR is yet to be formally searched. Such requests require considerable time frames to be available and in view of the preliminary nature of this report, this action will be completed in the near future. At this stage, it is considered a very low probability that a site(s) or object(s) is registered or reported in the development area due to the absence of such mention in the SAM Archaeology cards and databases. The site survey revealed a very low probability for sites or objects, including burials, to be discovered during earth moving activities.

Discussion with Aboriginal Parties

An amendment to the Aboriginal Heritage Act, SA, 1988, has recently been tabled in Parliament. This amendment has significant outcomes for undertaking consultation with Aboriginal parties. In view of this recent amendment and in view of the preliminary nature of this report, it was not appropriate to undertake consultation at this stage.

If the Aboriginal Heritage (Miscellaneous) Amendment Bill 2016 proceeds and if under that Bill a Registered Aboriginal Party is appointed for Kangaroo Island, then a consultative process will be established with that Party so that any Aboriginal cultural heritage concerns can be identified.

5.2 Managing Risk associated with disturbance to or discovery of Aboriginal Heritage sites and objects

Given that database searches and site survey revealed no Aboriginal archaeological sites or objects, along with further analysis of the site and context by K. Walshe (see appendix E) it has been considered highly unlikely that sites or objects will be discovered during project works. There is no legislative requirement for further archaeological survey work and given the very low probability for sites (including burials) or objects to be discovered in the proposed development area, further survey and monitoring during earth moving is not expected to take place. It has however been recommended that the earth moving crews be inducted on the possibility of an Aboriginal object being found and the response to that in line with DSD-AAR and the Aboriginal Heritage Act 1988, the details of which are set out below:

- Do not remove anything from the area. Continue activities away from the area.
- Inform Construction Project Manager (CPM) of site discovery.
- Construction Project Manager informs Department of State Development and Division for Aboriginal Affairs and Reconciliation (DSD-AAR) to confirm whether the site is an Aboriginal site.
- If the site is confirmed not to be an Aboriginal site works may continue at the location.
- If the site is confirmed as an Aboriginal site the CPM is to liaise with DSD-AAR to determine the appropriate management approach.
- If the site cannot be avoided during construction activities the proponent may need to apply to DSD-AAR for Section 23 authorisation to damage, disturb or interfere with the Aboriginal site.
- If the site can be avoided during construction activities then works may continue at the location with management measures implemented to avoid damage to site.

5.3 & 5.4 Native Title

Under the Native Title Act 1993, the National Native Title Tribunal (NNTT) is responsible for maintaining three public registers; the National Native Title Register, the Register of Native Title Claims and the Register of Indigenous Land Use Agreements. These registers hold records of native title determinations, applications and Indigenous land use agreements made under the Native Title Act 1993.

As part of K. Walshe's assessment it was established that there is no native title grant or application over the proposed development area. Further, it is unlikely that a claim under the Native Title Act 1994 will be made given the lack of continuous occupation on Kangaroo Island.

A6_Environment American River Lodges

PART I

September, 2016

ASSESS 6

ENVIRONMENT

This section describes how the proposal has been developed in a manner which is cognisant of environmental impact and how potential impacts and existing environmental values may be managed.

- 6.0 Environmental Impacts
- 6.1 Land Management
- 6.2 Primary Production
- 6.3 Native Vegetation
- 6.4 Introduced Plant Management
- 6.5 Native Fauna
- 6.6 Threatened Fauna
- 6.7 Hydrogeology & Drainage
- 6.8 Noise

6.0 Environmental Impacts

The proposal's core development principles on which the project was designed and will be developed have 3 environmental objectives.

1. Light touch development - No substantial negative impact on threatened species in construction or operations.
2. Improve the sites native vegetation- Re-introduce indigenous species to degraded site. Use botanic garden lodge as focus for economic activity around this.
3. Conservation + Education - Promote conservation tourism, particularly in the winter, to strengthen habitat and populations of threatened local fauna.

6.1 Land Management

The hotel is planned for the 33Ha site on the western edge of the American River settlement, within the area zoned as Residential and Deferred Urban (DPTI 2014). It is an area of predominantly cleared land with patches of native vegetation as well as revegetated areas consisting of both local native and Australian native species.

The property has been held by the same extended family since settlement. It has been used for sheep grazing for the past 26 years, with occasional use for horse agistment (a form of grazing) and some cropping. Although the site may have been sprayed for weed control, this isn't known to have happened in recent years. No sheep dips or spray stirs have been installed or used on the site.

It shows degrading factors typical with agricultural land such as poor soil quality, weeds and a lack of diversity of native species. Straight lines of now established trees were introduced 15 years ago when the land was going to be used as a golf course. This failed and the site was returned to grazing.

A BushRAT survey was carried out by local flora experts (See Appendix B) It found that the property consists primarily of poor quality native vegetation, consisting of an Allocasuarina verticillata forest in the centre of the property, many large Eucalyptus cladocalyx with hollows, remnant mallee vegetation and some planted vegetation including Allocasuarina verticillata. There are substantial issues with proclaimed weed species particularly boxthorn which is located on the southern-eastern side of the property.

6.2 Primary Production

The hotel site juxtaposes the Township of America River on 3 sides. On the west (and north west) perimeter it adjoins agricultural land. This is used for grazing (currently of horses) and represents no potential conflict with the proposal.



(60)

6.3 Native Vegetation

The strong and stated intention of the design team was to avoid all loss of high quality flora, particularly native species and flora that made up ecosystems acting as habitat for fauna. To achieve this buildings are placed in particular locations to avoid the loss of habitat. However certain infrastructure, such as fire safety tracks, have required specific positioning that will lead to the loss of some vegetation.

The proposal necessitates a clearance of approximately 0.11ha of native vegetation from a few areas across the site. Expert native vegetation consultants undertook a BushRAT Survey of the native vegetation and determined that-

1. The existing native vegetation is of poor to moderate condition;
2. No nationally threatened, state listed or regionally significant plant species were observed during the vegetation assessment;
3. The property contains potential habitat for *Caladenia ovata* which is listed as Vulnerable under the EPBC Act;
4. The property contains a small portion of degraded Kangaroo-Island Narrow-leaved Mallee Woodland which is listed as Critically Endangered under the EPBC Act;
5. The property contains, as observed during the survey, feeding and nesting habitat for the Glossy Black Cockatoo which is listed as Endangered under the EPBC Act;
6. The property contains potential habitat for the Southern Brown Bandicoot which is listed as Endangered under the EPBC Act.
7. The off-set for the native vegetation clearance is calculated at 1.6 SEB Hectares or a payment of

\$8,892.68 to the Native Vegetation Fund under the soon to be introduced Policy for Significant Environmental Benefit. Note the SEB Hectare calculation is consistent with the current policy;

The design team have developed a concept landscape plan (See Fig. 28 p.109) that involves extensive revegetation of large swathes of the site with a variety of native vegetation; particularly flora native to this part of KI, in the hope that the overall condition of the native vegetation and in turn the habitat for threatened fauna can be improved. The revegetation strategy may be used as an off-set for the clearance if implemented by someone who has extensive experience in the propagation of a large number of different Kangaroo Island native plant species.

The Landscape Plan for the site proposes to establish the following landscapes-

Native Vegetation 10ha

Infill the existing native vegetation to enhance the Glossy Black Cockatoo, Southern Brown Bandicoot and Kangaroo Island Narrow-leaved Mallee Woodland habitats. Creating a density of 2,000 stems Per hectare with a combination of existing and planted native vegetation. Creating diversity of a minimum of 20 locally indigenous species.

Grassland 12ha

Establishing a native grassland on the site by planting circa 3,000 seedlings Per hectare

Shrubland 10ha

Areas of up to 1.5m high shrubland are to be established using native plants suited to the American River area.

Flower Meadow 0.4ha

A focused area near the spa lodge using native plants that have strong smell and/or vibrant colours to enhance the spa experience

Botanical Garden 0.5ha

The Botanic Lodge will protect and showcase plants of Kangaroo Island significance to visitors of the island.

Lawn 0.7ha

A managed lawn will be established for recreational activities.

Vegetable Patch 0.3ha

A small vegetable garden near the specialty restaurant focusing on KI food will produce vegetables for the restaurants.

6.4 Introduced Plant Management

The implementation of the Landscape Plan above will require extensive weed management, including eradication of existing weeds, to achieve the desired result. The management of weed species will be an ongoing requirement in order to secure the establishment of new native plant species.

Care will be taken to consult with our local botanist before new plant species are introduced to the sites. This will prevent the introduction of further weed species.



(61)

6.5 Native Fauna

The project brief outlined the desire to limit impacts on threatened species in construction and operation, enhance the current environmental conditions through re-introduction of indigenous species, promote conservation tourism, and to strengthen populations of threatened local birdlife. Protection of nature and environmental sustainability are two of the listed objectives for the development.

An assessment was carried out to quantify the abundance, condition and significance of terrestrial fauna that exist and depend on habitat within the proposed development site and surrounding area. The assessment was carried out by Envisage Environmental, and can be found in Appendix D.

There are two nationally endangered species and two vulnerable species at a state level present on the site.

Glossy Black-Cockatoo

The South Australian Glossy Black-Cockatoo sub-species is listed as endangered under the EPBC Act. During the site survey that took place as part of the assessment, two individuals were observed roosting in a tree on the eastern side of the resort development near the proposed conservation & adventure lodge. Two major feeding sites were found in groves of *Allocasuarina*, near the proposed main restaurant and reception areas, and three collared nesting trees are situated on the eastern side of the site in the vicinity of the proposed location of some of the smaller lodges.

Short-beaked Echidna

The Short-beaked Echidna sub-species is listed as endangered under the EPBC Act. Diggings of the echidna were common on the resort site and a scat was found in the small grove of *Allocasuarina verticillata* in the middle of the site, near the location of the proposed reception area.

Heath Goanna

The Heath Goanna is listed as vulnerable under the NPW Act. Diggings of this species were observed on the site. They are likely to live in the better-vegetated areas.

Scarlet Robin

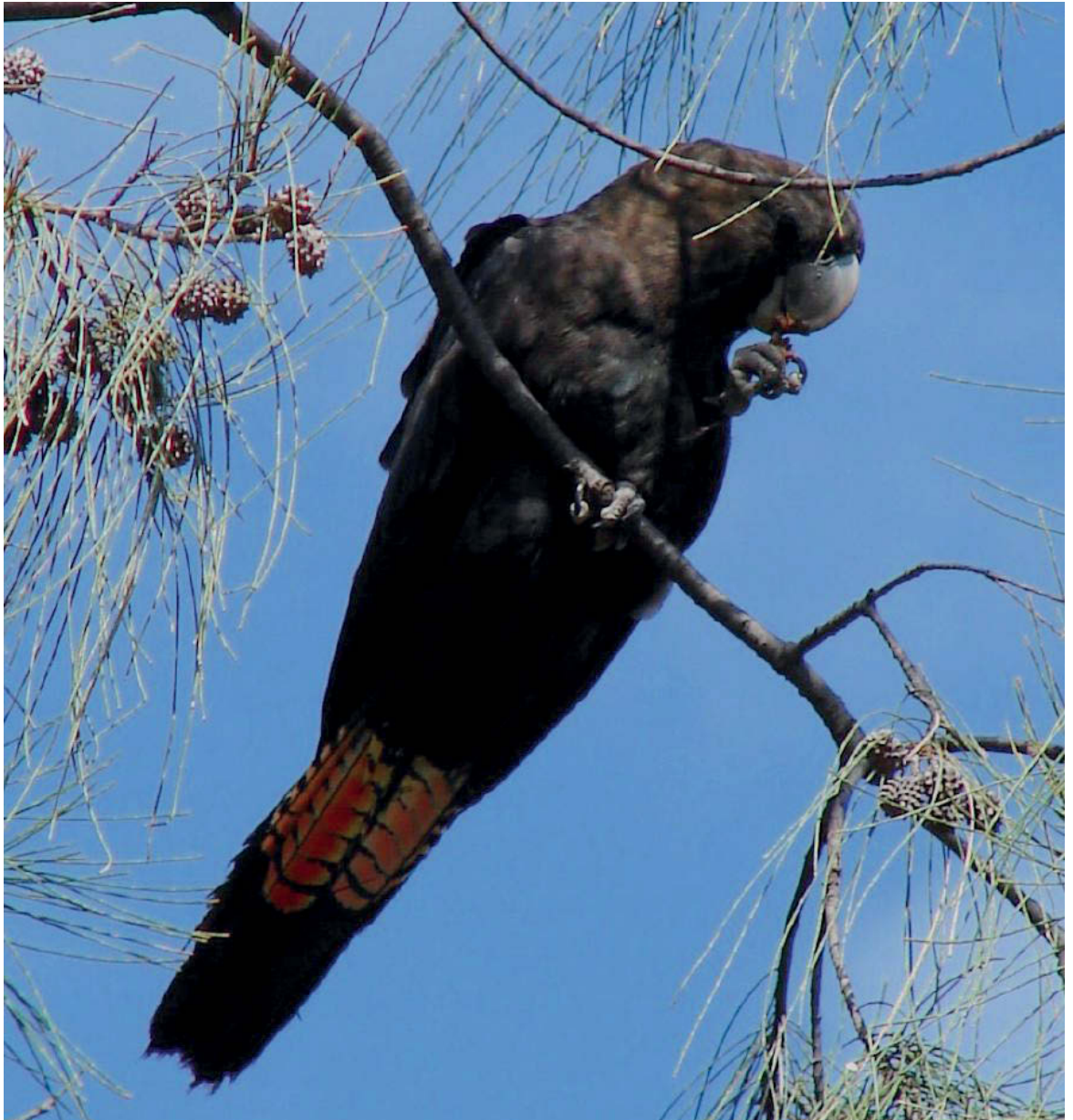
Scarlet Robin (*Petroica boodang campbelli*) is listed as vulnerable under the NPW Act. The sub-species of Scarlet Robin on Kangaroo Island is uncertain but for this purpose we have assumed it is *Campbelli*. A robin was observed in bushland on the north eastern side of the property.

Other Species of Interest

Western Grey Kangaroo (*Macropus fuliginosus*) was sighted on three occasions on the site. Tammar Wallaby (*Macropus eugenii decres*) and Common Brush-tailed Possum (*Trichosurus vulpecula*) scats were also found, but no wallabies or possums were sighted. Local residents indicate that these species are not over-abundant, unlike other parts of Kangaroo island but do occur. The Common Brush-tail Possum is regarded as rare in SA but not on the island. An introduced cat (*Felis catus*) was observed on the site and six house mice (*Mus domesticus*) were captured during trapping.

Other bird species observed on nearby wetlands which are regarded as rare at a state level include the Little Egret, Australia Pied Oystercatcher and Sooty Oystercatcher. Other species not seen but likely to be in the area include the Bush Stone curlew, Cape Barren Goose and Whimbrel.

The threatened Subtropical and Temperate Coastal Saltmarsh ecological community (vulnerable under the EPBC Act) is within the American River Wetland System.



(62)

6.6 Threatened Fauna

The potential impacts of this development on matters of national significance relating to fauna on the proposed resort site are as follows:

Hotel

The site is within the settlement of American River and as such the development is unlikely to create additional significant disturbance to species such as Osprey and the White-bellied Sea-eagle.

The site is mostly cleared farm land on the western side, previously being used for grazing, with intact bushland on the eastern side of the property. Areas with mature sugar gum, and patches of original and revegetated Drooping Sheoak (*Allocasuarina verticillata*) provide feeding and breeding habitat for the Glossy Black-Cockatoo.

Prior to a threatened species recovery program being implemented, the Glossy Black-Cockatoo population size was estimated at approximately 200 birds. This number was thought to be declining due to habitat loss, possums preying on eggs and nestlings, and competition from honey bees at nest sites. Since the program commenced, numbers of Glossy Black-Cockatoos on the island have steadily increased to over 350 individuals. The American River sub-population consists of 26 adult birds that produced 5 juveniles in 2014 (Berris and Barth 2015). Three nest trees occur on the site in habitat identified as critical breeding habitat.

Sugar Gum in the area will be protected considering the many decades that are needed for a tree to produce suitable nesting hollows. The revegetated Drooping Sheoak that are currently used as a food source will be maintained as feeding sites for the birds. This fits well with the resorts objectives to focus

on promoting conservation tourism, and strengthening populations of threatened local birdlife. With an informed management strategy which maximizes habitat and minimizes disturbance, and dove-tails with the objectives and activities of the Glossy Black-Cockatoo Recovery Program, the disturbance of the resort should not be significant in the long-term. It is likely that the development stage will cause substantial disturbance and as such the timing of construction will be considerate of breeding season for the buildings in close proximity to the nesting sites.

Wide spread sign of the endangered Short-beaked Echidna was found on the property. This species is threatened by habitat fragmentation, road kill, feral pigs, electric fences and cats preying on young (Woinarski et al. 2014).

Signs of the State listed Heath Goanna were also found in a wide range of habitats. Individuals require large home range areas and termite mounds for nesting purposes, feeding on road kill, birds, eggs, small mammals, invertebrates and other reptiles. This species is threatened by clearing, vehicle traffic and predation by cats.

Disturbance during the construction and operational phase of the proposed development could cause significant impact on both the Short-beaked Echidna and the Heath Goanna local population if individuals are harmed, harassed or disturbed. Their distribution and abundance on the site should however be enhanced with appropriate revegetation using native species. Traffic speed and behaviour of construction workers, staff and visitors will be managed to ensure the foraging and nesting activities of the species are not adversely affected. Cat control on the proposed development site would improve the survival of these and a number of other native species.



- Nesting habitat
- Feeding habitat

(63)

No diggings or sign of the Southern Brown Bandicoot were observed during the survey but the species has been recorded in past years within 500 m of the site (Jones et al. 2010, DEWNR BDBSA database). Individuals may use or move through the vegetation on the eastern boundary of the project site, which is physically connected to larger, more intact native vegetation patches. Whilst impact from the proposed development is not considered significant considering the proximity to existing settlement, habitat removal should be limited where possible, and the proposed extensive revegetation using appropriate local native plant species on the site could increase habitat suitability. Patchy low dense heath or grass and shrub cover is required by the species for nesting and protection from predators (Paull 1993).

A number of animal species are listed for the area but are unlikely to occur including the Kangaroo Island Dunnart (*Sminthopsis griseoventer aitkeni*) which is listed as endangered under the EPBC Act. The Kangaroo Island Dunnart has been recorded in a variety of habitats but all the records since the 1970s are from the western end of the island where the vegetation remains more intact (Gates 2009). The species is not considered to be present in the area primarily because of the fragmented nature of the vegetation. The proposed development is unlikely to have an impact on this species.

The site had a good diversity of native bird species, including the Scarlet Robin, which were predominantly located on the eastern side of the property in the bushland and groves of flowering Eucalypt. This vegetation should be protected and enhanced through weed removal and revegetation to strengthen local birdlife.

6.7 Hydrogeology and Drainage

Internally, the site grades to two main sub-catchments and surface flows are diverted towards the south via two watercourses. The site is considered relatively steep and has typical grades 8 - 10% being predominantly un-vegetated. The two existing perennial watercourses traversing the site show signs of scour and degradation and there are two dam storages located within the site.

The geology in the area forms part of the Kantmantoo Trough which is considered to be typically sandstone. The Kantmantoo Group is generally considered to be a poor aquifer due to the impermeable nature of the rocks. Where groundwater is encountered yield is expected to be low as it generally occurs within the bedding fractures; accordingly the likelihood of utilising an existing groundwater source for the purpose of aquifer storage and recovery is considered low.

The SARIG database indicates that moderate to high salinity levels are expected to be encountered at this location. The expected salinity levels are considered suitable for irrigation purposes (subject to the proposed landscaping plan and further testing).

The geology indicates the presence of residual soils that typically are sandy silty soils with some low plasticity clays. These soil types typically have a moderate to high permeability, and would need to be confirmed with further geotechnical testing. The Soils Association map for the area can be found in Appendix L.

Groundwater in South Australia is under the care and management of DEWNR and accordingly the drilling of groundwater wells and/or use of groundwater is approved and managed through Water Affecting Activities permits.

The site comprises approximately 33 hectares of semi-rural residential catchment which contributes to the two unnamed watercourses. There are three significant sized rural external catchments contributing from the north. These conditions are drawn in Fig. 55.



(64)

6.8 Noise

A preliminary environmental noise assessment has been made for the proposal. This can be found in Appendix K and is summarised below. The key noise sources associated with the development were identified as:

- music and patrons within entertainment restaurants and cafes;
- mechanical plant such as air conditioning, ventilation and refrigeration systems;
- Pool associated plant, such as pumps.

Patrons, Mechanical Plant and Car Park Activity

The Environment Protection (Noise) Policy 2007 (the Policy) provides the most appropriate criteria for patrons, mechanical plant and car park activity. The Policy provides goal noise levels based on the Development Plan zones in which the noise source and the noise sensitive land uses (the surrounding dwellings) are located.

For a development in a Town Centre Zone or Deferred Urban and Residential Zones, the Policy recommends the goal noise levels stated in Fig. 66 to be achieved at the dwellings in the Residential Zone.

To meet these criterion mechanical plant will be strategically placed and screened, with a further assessment needing to be conducted at the detailed design stage to ensure these criteria are met. It is expected that a limitation on location and number of large groups after 10pm, along with a limitation of outdoor events, may be necessary to meet these criteria.

Entertainment Venue Music

The Environment Protection Authority (EPA) and Development Plan state that the music noise (L10,15) from an entertainment venue when assessed externally at the nearest existing noise sensitive location should be less than 8 dB above the level of background noise (L90,15) in any octave band of the sound spectrum.

The site may host live music for occasional events such as weddings and conferences, but this is currently expected to be limited to the main pool restaurant and conference facility.

The exact operational details will need to be assessed once defined by a specific operator, and as such will be a condition of licensing. This will be combined with measurement of the existing background noise environment, to make an assessment against. Once assessed, the facade and roof of venues will be appropriately designed to accommodate the proposed music.

Music from Outdoor Events

The EPA and Development Plan guidelines do not provide objective criteria for outdoor events. In these circumstances, reference is made to the Victorian State Environment Protection Policy (Control of music from public premises) No. N-2 (SEPP N-2). SEPP N-2 includes the following:

- The noise limit for outdoor venues is 65 dB(A) when the measurement point is located outdoors and 55 dB(A) when located indoors. This limit does not apply at any noise sensitive area within the Scheduled Area to music noise from any outdoor venue within the Melbourne Docklands Area.
- The effective noise level for outdoor venues is the LAeq measured in dB(A).
- Operating times:

a) An operation of an outdoor venue may only take place between the hours 12 noon and 11 pm, except where the duration of the operation is greater than five hours in which case the operation may take place only between the hours 12 noon and 10 pm.

(b) Notwithstanding clause (a), the Authority may allow later operations where it is satisfied that music from the premises will be inaudible within all noise sensitive areas, or where it is satisfied that the proposed operation is: a non-profit event, for charitable purposes, or is of special social significance.

No more than six concerts may be conducted at an outdoor venue in a financial year unless clause 30 applies.

"Concert" means any operation of an outdoor venue where the effective noise level exceeds 55 dB(A) (or 45 dB(A) if measured indoors) at any measurement point in a noise sensitive area.

To achieve these criteria, music will be limited to the hours between 12 noon and 10pm for outdoor events greater than 5 hours; and between 12 noon and 11pm for outdoor events less than 5 hours. Any outdoor events on the site shall also not exceed noise at adjacent residences of 65 dB(A), being limited to 6 "concerts" DR year where the noise at adjacent residences is between 55 dB(A) and 65 dB(A).

Hotel Accommodation Amenity

The proposed hotel development is within a quiet environment and therefore it is not expected that an upgraded facade construction will be required to achieve adequate levels of amenity within the accommodation due to external sources.

The noise from activities at the hotel development will be assessed in more detail during the detailed design stage, once operating details

are known. This will ensure the noise from sources such as mechanical plant, patrons and music are adequately separated from the accommodation. Treatments may include careful placement and screening of mechanical plant and outdoor cafe/restaurant areas. Due to the isolated nature of the various hotel components and their distance from sensitive receivers, upgraded constructions to the accommodation are considered unlikely to be required.

Construction Noise

The Environment Protection (Noise) Policy requires construction activity to either achieve an equivalent noise level of 45 dB(A) and maximum of 60 dB(A) at noise sensitive locations, or only occur between the hours of 7am and 7pm on any day other than Sundays or public holidays, and between 9am and 7pm on Sundays and public holidays or prior to 7am on other days where grounds exist that the Authority or another administering agency determines to be sufficient. The Policy also states that "all reasonable and practicable measures must be taken to minimise noise resulting from the activity and to minimise its impact".

Based on the above, construction activity will not unreasonably interfere with the amenity of the surrounding dwellings when restricted to any day other than Sundays and public holidays and only occurs between the hours of 7am to 7pm. Where works are required outside of these hours, a specific noise and vibration management plan will be prepared to achieve the 45 dB(A) equivalent and 60 dB(A) maximum noise level criteria of the Policy

A7_Sustainability American River Lodges

PART I

September, 2016

ASSESS 7

SUSTAINABLE

This section describes how the proposal is being developed in a manner that seeks to optimise environmental sustainability.

- 7.0 Sustainability & Climate Change
- 7.1 Energy Efficiency & Sustainable Development
- 7.2 Minimising Material & Resource Use
- 7.3 Waste Management Strategies
- 7.4 Minimising & Supplementing Power Requirements
- 7.5 Climate Change, Greenhouse Gas Emission & Alternative Energy

7.0 Sustainability and Climate Change

The proposal aims to actively engage with measures to increase sustainability and reduce impacts on the environment, including the minimisation of greenhouse gas emission. This has been key to the architectural design principles and is being developed in relation to the servicing and infrastructure strategy as the design is finalised.

7.1 Energy Efficiency & Sustainable Development

The proposal includes several different types of buildings, each of which will perform differently in response to their use, location and design.

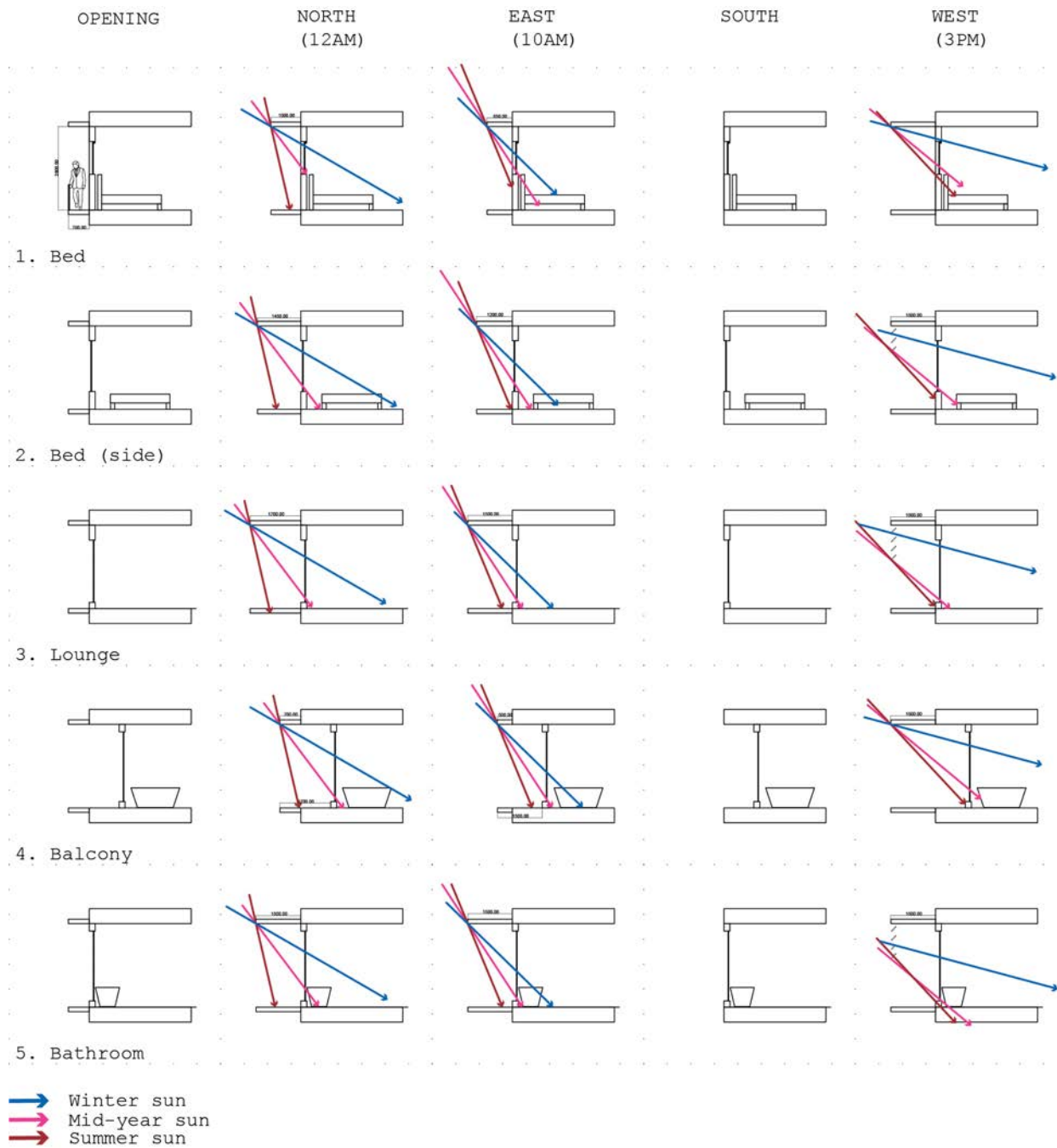
The following principles are being employed in the design of all the buildings to maximize energy efficiency:

- Use of passive solar shading devices, notably on the lodges whereby verandas wrap the building providing solar shading. This has been developed so that the depth of the veranda responds to the angle of the sun and direction of the sun dependent on each lodge's location. Solar shading devices such as shutters are expected to be used for the cottages and cabins
- Design of verandas to lodges incorporates potential to harness solar gain for heating at appropriate times of the day and year
- Siting of buildings to avoid vegetation clearance
- Hotel rooms designed to have open-able windows on 3 sides, allowing for cross-ventilation, reducing reliance on mechanical cooling
- Use of building materials with low embodied carbon
- Use of low emissivity building materials
- Extensive use of high-quality insulation
- Use of high performance glass. It is expected that all buildings will be fitted with double-glazing
- Use of high specification seals to all doors and windows
- Specification of high efficiency heating and cooling equipment, lights, appliances and water fixtures
- Use of 6 star WELS rated fittings within guest and staff amenities to minimise water use
- Specification of timed flow tapware in public amenities
- Prefabrication of building elements in controlled factory environments to minimize on-site pollution, and ensure pollutants as a result of construction are properly managed
- Use of photovoltaic panels on roofs where feasible
- Design of landscaping and re-vegetation strategy to avoid planting that requires excessive watering; use of low maintenance indigenous species
- Use of subsurface irrigation to prevent evaporation

All the buildings will be compliant with NCC BCA 2016 Section J - Energy efficiency, and meet the minimum requirements for building fabric and services performances.

The following principles are to be employed in the operation of the hotel to maximize energy efficiency:

- Use of collected rainwater for toilet flushing & irrigation



- Use of stormwater for irrigation
- Retention of road and hard surfaces runoff for irrigation
- Ongoing monitoring of water use, daily meter readings highlighting any leaks within the underground reticulation system
- Developing a brand associated with the hotel that educates and encourages guests to enjoy the facilities in an environmentally responsible manner, such as highlighting water used in taking a bath
- Collecting, sorting and recycling of waste

7.2 Minimising Material and Resource Use

The lodges, cottages and cabins are formed of a series of standard and repetitive elements. Therefore there will be few bespoke elements that tend to create greater waste. The use of prefabricated building elements furthers this strategy. Prefabrication not only reduces the overall waste produced during construction, it will specifically reduce waste on-site, having significant environmental benefits.

The development of design continues to look at the potential for locally sourced materials to support the project. The island has a relatively small production of appropriate building materials, however it is proposed that elements of the building that are fabricated on-site may be formed of rammed earth or make use of locally harvested straw as an external insulation material. This will make use of earth sourced on the island. These options are being explored for the ground floor of the lodges, along with the cottages & cabins. Both of these materials have the advantage of a low embodied energy and effective thermal properties. More broadly, low maintenance materials are key to the development, to avoid the on-going environmental and economic implications of maintenance.

The operational use of materials and resources for a hotel operation is traditionally very heavy. Given the remote location of the island, such use of materials has both a significant environmental and economic impact. For both sustainability credentials as well as financial performance, careful use of materials and resources will be critical. It is expected that the management of this will form part of the selected operator's operational management plan. To support this the design includes facilities such as the vegetable garden to feed the on-site restaurants. More broadly, Kangaroo Island produce will be prioritized over imported produce in supplying the proposal.

7.3 Waste Management Strategies

Beyond the measures stated in 7.1 methods for reducing waste during operation and construction will be established in waste management plans. Outline strategies for waste management during construction and operation are set out below, with more detail being provided in the draft CEMMP and OEMMP (see Appendix P).

Waste management during construction:

- Setting waste minimisation targets and measures as part of the CEMMP
- For inert waste, a waste minimisation assessment identifying waste and methods for reduction, reuse and recycling should be undertaken as part of the CEMMP
- Solid inert waste found on construction sites such as building rubble, concrete, bricks, timber, plastic, glass, metals, bitumen, trees and shredded tyres. Such wastes should be reused or recycled over disposal to a landfill site licensed to take such wastes
- For contaminated waste, material should be excavated in a manner which avoids off-site environmental problems.
- Any contaminated material or wastes should be sealed as quickly as discovered.
- Transport odorous wastes in covered vehicles.
- Dispose of contaminated material in a landfill licensed to take the type of contaminated material or wastes uncovered.
- On-going monitoring of any acid sulphate soils present will take place. In response to this a method for their disposal will be developed as necessary.

Waste management during operation:

- All solid wastes will be placed in appropriately designed storage areas and/or disposed of on an as-required basis to certified disposal facilities. Putrescible waste storage and disposal will conform to EPA regulations and KI Council waste storage policies.
- All staff will be educated to appropriate waste management procedures.
- A high standard of housekeeping will be maintained during operation to prevent litter, with secured bins for disposal of food waste.
- Secured bins will be appropriate for preventing scavenging by native or feral wildlife.
- Each lodge will have dedicated refuse and recycling collection on a daily basis, being delivered to a centralised collection site in the Back of House services block at the eastern corner of the site.
- Hotel facilities, such as the restaurants, will have dedicated refuse and recycling bins on location, being emptied and delivered to the centralised collection site in the Back of House services block at the eastern corner of the site.
- Re-use or recycling opportunities will be investigated and adopted where possible. It is expected that glass, cardboard and plastics be recycled through KI council or a contractor - negotiations on this are yet to take place.
- Scrap metals and batteries will be recycled at metal recycling yards.

7.4 Minimising & Supplementing Power requirements

The development is contingent on there being sufficient power to support the on-going operation of a resort and its associated facilities. Power is demanded for a range of activities and appliances - lighting, air-conditioning, telecommunications etc. It has been predicted that the total power requirements of 1000kVA cannot be provided from the possible renewable energy sources available on site alone. BCA engineers carried out investigations into the potential for solar, wind harvesting and gshp. It has been estimated that up to 490MWh Per year may be generated through the installation of photovoltaic panels to the lodges. Further investigation will be carried out to ensure the feasibility of PV cells in terms of design, construction, and payback.

Due to the presence of listed bird species on and around the site, the risk associated with wind turbines combined with the high-cost of associated infrastructure, it was decided that they were unfeasible. Wind turbines may also cause a noise disturbance to guests and locals.

It is proposed that all electrical fittings shall be to the latest standards, providing the best energy efficiency possible, notably all lighting shall be LED. The proposal also expects to use a non-centralized air-cooled, electric multi-head split air conditioning system. This will allow different spaces to be cooled as required, and avoids excessive use of

power to pump cooled & heated water through the site.

7.5 Climate Change, Greenhouse Gas Emission & Alternative Energy

The development is cognisant of climate change, and its implications in relation to the tourism industry - an industry that typically encourages energy use, high-carbon footprints and greenhouse gas emission. The proposed resort is planned to be an eco-friendly initiative. This is expected to be of major appeal to guests and will be used as part of the marketing of the hotel. To ensure substance is given to this claim a range of management plans and strategies are to be incorporated, delivering the long-term sustainability of the resort. This will include energy usage monitoring, as well as promotion to staff and guests of ways in which they may reduce the carbon footprint of their stay. This may be through reduced power usage by switching off lights, reduced water use through less-frequent use of baths and walking instead of relying on hotel buggies. The revegetation of parts of the site is proposed to provide a small carbon offset, however it is hoped that during the hotel's operation engagement with other local environmental initiatives may help to offset the carbon footprint of the resort.

A8_Transport American River Lodges

PART I

September, 2016

ASSESS 8

TRANSPORT

This section outlines issues relating to transport & access; addressing how the proposal will ensure safe and convenient access within, and to and from the development.

- 9.0 Transport, Access & Pedestrian Impact
- 9.1 Traffic Load
- 9.2 Infrastructure Upgrades
- 9.3 Access & Parking
- 9.4 Pedestrian Routes

9.0 Transport, Access and Pedestrian Impact

The proposal has been developed in a manner that will provide safe and convenient access to and from the hotel site via Thomas Road. The following section will explain this, the proposed development details have been summarised below:

- 115 room hotel accommodation
- 108 room Lodge accommodation
- 20 Cottages & 20 Cabins for guest accommodation
- 200 guest car parking places, 60 staff and service vehicle places
- 150-200 staff will be required for peak period operations (e.g. summer)
- A mix of local and non-local (main land SA) staff anticipated
- Hotel resort circulation is on foot/bike but Electro-carts will be available for bad weather and less mobile guests.

9.1 Traffic Load

Based on the trip generation assessment presented in Appendix Q, the proposed holiday resort is considered to generate up to 50 vehicular trips during the peak hour. It is further assumed that up to 44 trips (22 entering/22 exiting) would be generated by the resort Per day and the remaining trips would be local or to other destinations on Kangaroo Island.

The existing Sealink ferry at Penneshaw has up to 55 vehicle & 378 person capacity. While additional services are offered during peak periods between Penneshaw and Cape Jervis it is still likely to restrict the overall trip generation to/from Kangaroo Island. However, in reality the overall trip generation to/from the resort site is anticipated to be much lower than estimated above for the following reasons:

- The existing coach service between the Penneshaw Sealink terminal and American River & Kingscote will cater to some of the travel demand generated by the proposed resort.
- The proposed holiday resort may provide a shuttle service for tourists that will offer transfers between the Kingscote airport and the resort
- The proposed holiday resort has plans to arrange for day tours to key tourist attractions on Kangaroo Island (route, frequency and capacity to be determined at later stage) or engage a 3rd party to operate such tours
- Assumed 1/3rd turnover for rooms on any given day is conservative as tourists are likely to stay at the resort for multiple nights, thus the actual turnover figures would be lower
- Assumed vehicle occupancy of 2 persons/vehicle is deemed to be on the lower side as families (2 adults + 1 or 2 children) and friends traveling together would result in higher vehicle occupancy. This is likely to result in less vehicular trips.
- Constraints on vehicle carrying capacity of the existing SeaLink ferry service restricts the total number of vehicles entering/leaving Kangaroo Island. Thus the overall trip generation to the proposed holiday resort is envisaged to be dependent on ferry capacity.

9.2 Infrastructure Upgrades

9.2.1 Thomas Road and Red Banks Road

Under the existing conditions minimal traffic was observed to pass through Thomas Road / Red Banks Road junction.

The proposed holiday resort is estimated to generate 50 vehicular trips during the peak hour. The proposed development traffic will result in a significant increase in traffic using Red Banks Road and Thomas Road.

It should be noted that the existing traffic passing through this junction during the peak hour is estimated to be less than 10 vehicles. Considering the junction's current under-use the overall traffic post development will be far lower than its design capacity.

Thus the proposed development is not considered to impact adversely on Thomas Road / Red Banks Road junction however further detailed assessment of junction layout will be taken at the time of detailed design.

9.2.2 Red Banks Road / Tangara Drive and Buick Drive

Under the existing conditions approximately 40-45 vehicles were observed to pass through Red Banks Road / Tangara Drive intersection with Buick Drive.

The proposed holiday resort is estimated to generate 50 vehicular trips during peak hour. The proposed development traffic will result in significant increase in traffic using Red Banks Road / Tangara Drive and Buick Drive.

It should be noted that the existing traffic passing through this junction is estimated to be well below intersection capacity. The overall traffic post development will still be far lower than junction capacity.

Thus the proposed development is not considered to impact adversely on Red Banks Road / Tangara Drive intersection with Buick Drive.

9.2.3 American River Road / Buick Drive and Tangara Drive

Under the existing conditions approximately 40-45 vehicles were observed to pass through American River Road / Buick Drive and Tangara Drive junction.

The proposed holiday resort is estimated to generate up to 50 vehicular trips during the peak hour. Minimal traffic to/from the proposed resort is expected to pass through this junction.

It should also be noted that the existing traffic passing through the subject junction is estimated to be well below the junction capacity. Thus the overall traffic post development will still be far lower than the junction capacity.

The proposed development is not considered to impact adversely on American River Road / Buick Drive and Tangara Drive junction.

9.3 Access and Parking

The hotel site has two main vehicle entry points; they are clearly shown in the overall site plan.

9.3.1 Guest Vehicle Access

The main guest access and parking for visitors and lodge guests is on the North, highest point, of Thomas Road. This is where lodge guests as well as other visitors (including locals) will enter the site by vehicle. Currently there are 100 parking spaces provided between this access point and the reception lodge/ restaurant.

The road width proposed is greater than 6m and as such adequate for passenger vehicles to pass. This car parking has been proposed between the two lines of planted trees on the crest of the headland. The proposal is to lower the height of the car parking level by circa 700mm using retaining landscaping walls to ensure the car parking cannot be seen from elsewhere on the hotel site, from Buick Drive, or the River.

9.3.2 Hotel guests and Staff Vehicle Access

The main access and parking for hotel guests and staff is on the Northeast of the site mid-way up Red Banks Road. The parking lying on the south east of the site in a clear open flat space surrounded by trees.

This entrance is where servicing vehicles and deliveries for the hotel will be made as larger trucks (with larger turning circles) can be accommodated here. Currently there are c. 150 parking spaces provided here. It is expected that many staff will not have vehicles individually. Staff that live elsewhere on Kangaroo Island and drive to work will use the majority of these spaces.

9.5 Pedestrian routes

The site is currently undeveloped and has no safe public pedestrian facilities. The proposal will provide for safe paths through the site connecting the 10 Lodges and cottages. The proposal for routes through the site can be seen in plan in Section: *Proposal* (p.55). One main loop connects the main lodges and secondary paths split from it. The main loop will have a hard durable surface, with a build up capable of taking an electric buggy for less mobile guests. The pedestrian access will be c. 4m wide to allow groups to pass, cycling and buggy access. It will be landscaped to protect against wind and in parts may have covered sections (such as between the main lodges).

A proposed pedestrian route will connect the township to the hotel. This will run along the edge of the oval, and through the existing wildlife sanctuary, along Buick Drive and into the south of the hotel site. It is proposed that the route will be incorporated into the landscaping strategy, including a redevelopment of the wildlife sanctuary, to create an enjoyable walking route whilst improving the existing public infrastructure. This path will also be used for buggy access for less mobile guests.

Early discussions with the 'Shed' community sports club suggest they would welcome the proposal and support with the maintenance and up keep of the nature reserve fencing.



- Visitor/ Lodge Access
- Staff/ Hotel Access
- Pedestrian Town Access
- Visitor/ Lodge Parking
- Hotel/ Staff Parking

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09_Land Tenure & Management American River Lodges

PART I

September, 2016

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LAND TENURE & MANAGEMENT

This section outlines land tenure arrangements for the subject land.

- 10.0 Land Tenure & Management
- 10.1 Ownership Arrangements
- 10.2 Council owned land
- 10.3 Zoning

10.0 Land Tenure and Management

The proposals will be developed in an appropriate land tenure arrangement the site being privately owned.

10.1 Ownership arrangements

The subject land is parcel 84 in Hundred of Haines. In September 2016 the freehold title was bought by the proponent.

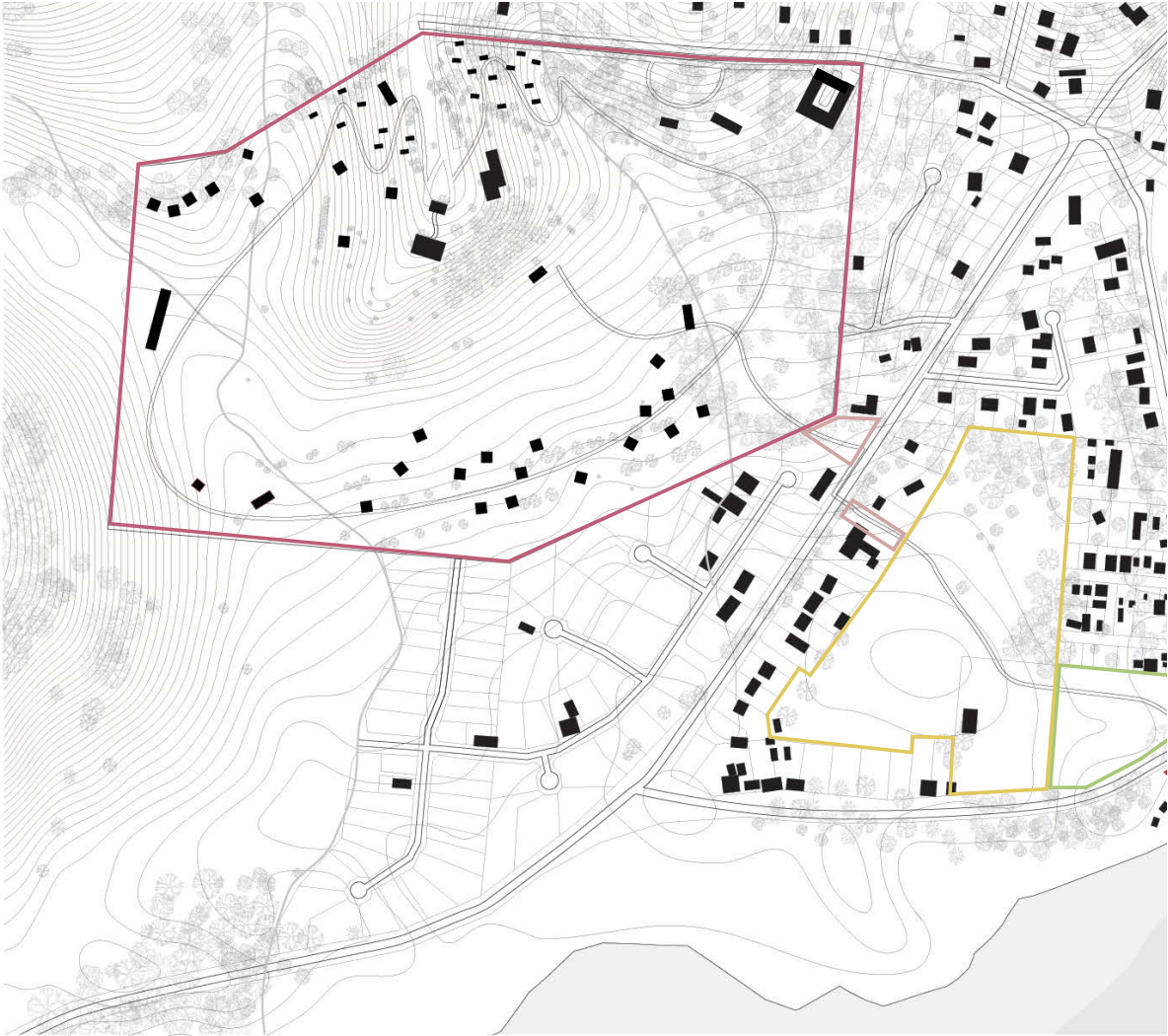
The site is to be retained as a single parcel and is not proposed to be divided in any form.

10.2 Council owned land

Discussions between the proponent and the council have taken place to gain access across the council owned road easements to link the hotel to the Township. This will need to be gained and approved prior to opening the hotel.

10.4 Zoning

The eastern portion of the site is zoned residential with the western half of the site is zoned as deferred urban. Following the approval of the proposal it is not envisaged that the ongoing operation and management of the development will require the rezoning of the subject land. Should Council or DPTI consider it necessary to rezone the land it would be appropriate to zone it as a Tourist Accommodation Zone or similar.



- Private Land
- Road easement
- ARCSA Land
- Council Land

10_Construction & Operation American River Lodges

PART I

September, 2016

ASSESS 10

CONSTRUCTION & OPERATION

This section discusses how construction and operational matters will be handled to ensure they are appropriately managed and controlled.

- 11.0 Construction & Operation
- 11.1 Staging & Timing
- 11.2 Cut & Fill
- 11.3 Storage, Management & Disposal of Materials
- 11.4 Stormwater Management during Construction
- 11.5 Monitoring and Management of Impacts during Construction
- 11.6 Noise Management

11.0 Construction and Operation

A draft CEMMP and OEMMP are contained in Appendix P. These highlight the risks associated with the construction and operation, the need for these risks to be assessed at the appropriate stages, and best practice for management of them. These plans will be reviewed and revised in consultation with Kangaroo Island Council and other responsible authorities, such as the EPA and DEWNR, prior to construction and operation.

The issues that will be outlined in a full CEMMP and OEMMP include:

- Pre-construction planning and design including environmental and risk assessment
- Environmental Management Plan including best practice documents and segment environmental control plan
- Land Disturbance including erosion measures, management of contaminated stormwater, de-watering work sites, dust control, sediment release and management of stock piles
- Hydrology and hydrodynamic processes
- Noise and Vibration including operating hours, vehicles and equipment, traffic, noise abatement and vibration
- Sequencing of construction
- Vegetation clearance, fauna and flora disturbance
- Heritage
- Site security
- Waste management & minimization
- Wastewater collection & treatment
- Contaminated material and wastes including solid inert wastes, putrescible wastes, low level contaminated soil and prescribed wastes
- Other and on-going environmental issues, including air quality, litter, storage of chemicals and fuel, road cleaning, protecting infrastructure
- Commercial operation management
- Traffic management
- Emergency evacuation
- Inspections, monitoring and record-keeping

11.1 Staging & Timing of Construction

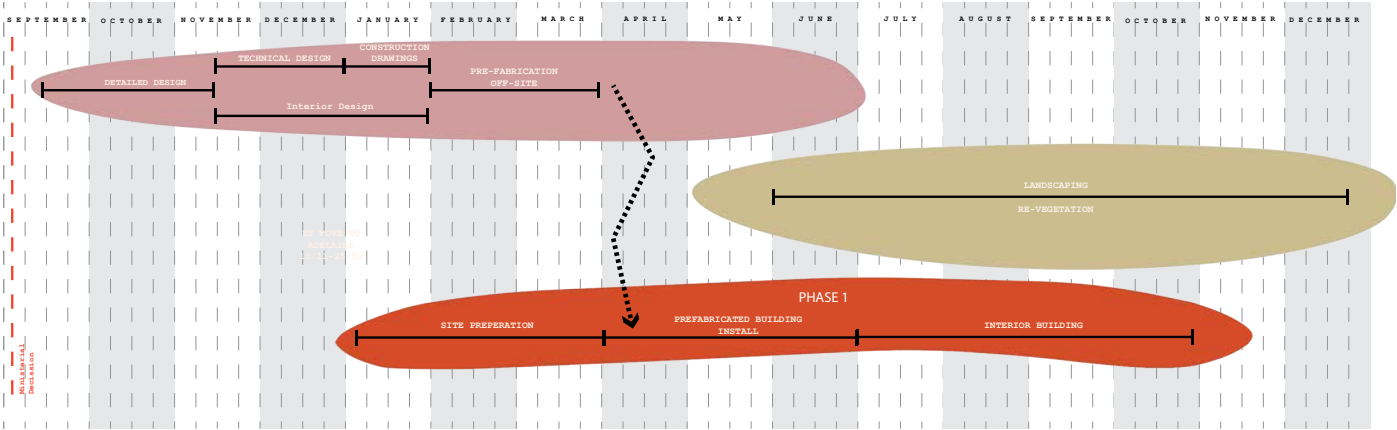
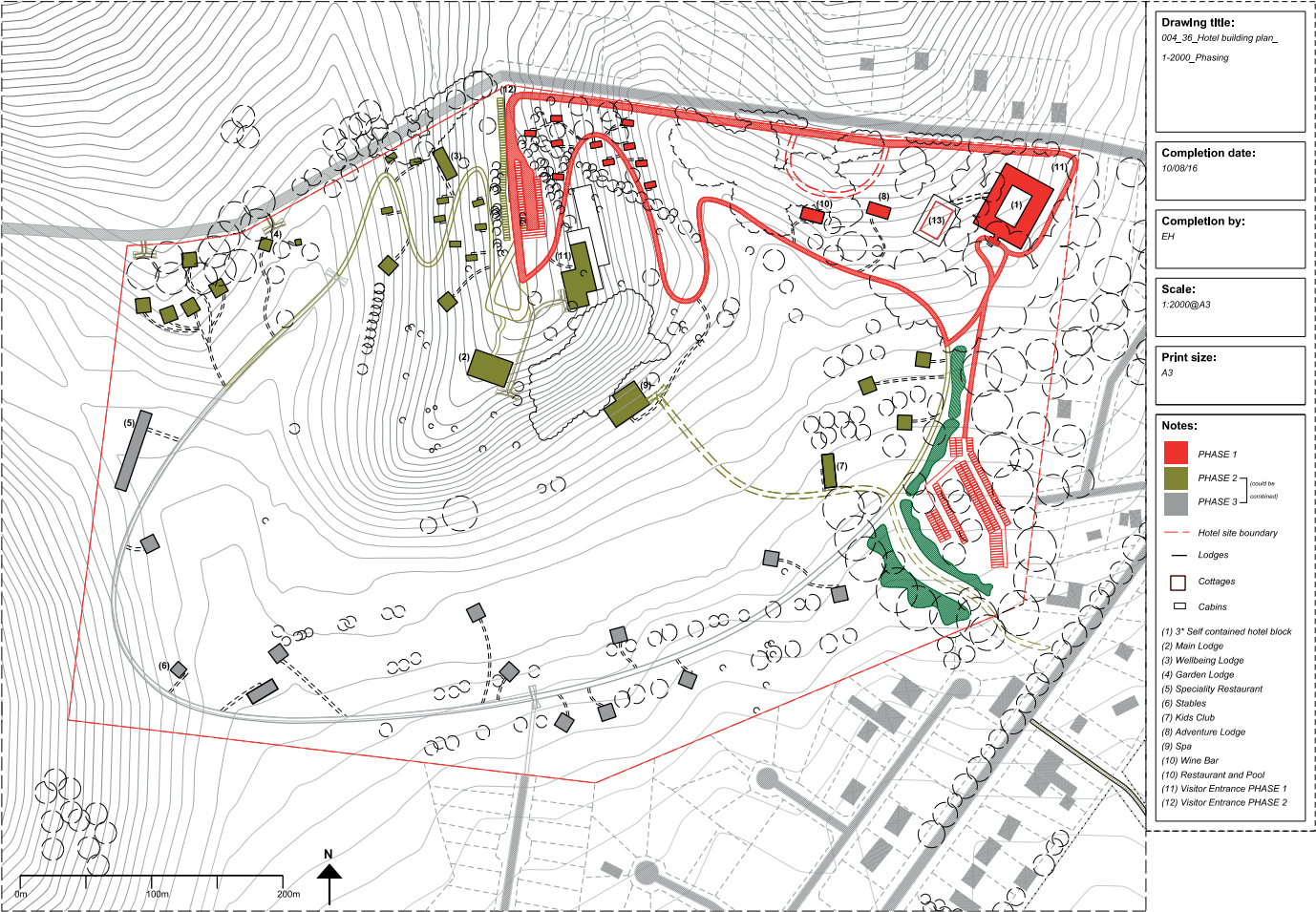
The hotel resort will be delivered across 3 phases and there are no current plans for expansion on this site beyond the plans shown.

It is anticipated that once development approval is granted by the Minister, currently expected to be in September 2016, detailed design and documentation of all elements will take between 12-18 weeks.

Following this ground-works and site infrastructure will be laid, expected to take up to 3 months (commencing Jan 2017). During this time off-site prefabricated elements for phase 1 will be produced, and delivered to site. On-site assembly of the building elements is expected to take 12 weeks. Final finishing and fixings is expected to take a further 16 weeks. Completion of the first phase is expected to be early 2018.

The following 2 phases are likely to follow a similar time-line. Allowing ground work to be done in the summer and internal fit out in winter. Splitting the project into 3 manageable phases allows to the local environment (including endangered species) as well as local people to adapt. It also ensures that noisy or dust-creating work does not go on for too long at one time.

As recommended in the fauna assessment carried out by Envisage Environmental Services, construction will be timed so as to have minimal impact on terrestrial fauna. Of key concern is the habitat of the Black Glossy Cockatoo, and their breeding season. To avoid disturbing their breeding season it has been recommended that extra caution is taken to limit the impact of construction of the buildings in close proximity to their nesting sites in the sugar gums in the eastern quarter of the site be avoided during March - September. In line with this ground works for the main hotel block should be completed before the breeding season begins. Quieter works, not involving heavy machinery, such as installing prefabricated units, cladding, finishing & fixing will continue at these times.



11.2 Cut & Fill

The design of the tourist resort has been developed to avoid buildings with excessively large footprints that would require excessive levels of earth moving and ground-works. This is particularly potent on a site that presents a quickly varying terrain.

Of the 10 lodges forming the majority of the proposed resort, 5 of them are sited on locations that aren't flat and require negotiation in how the building sits with the landscape. It is proposed that to avoid excessive earth moving the buildings will project from the landscape. This will create an undercroft space in places, this may be clad in keeping with the rest of the design. However, the design of this will be such as to not alter the flow of ground water across the site.

Given this, the amount of earthworks will be limited to small areas of ground leveling where necessary; this is not expected to be more than 1.0m +or- from existing levels. Additional earthworks will be involved in the construction of the pedestrian, buggy and emergency vehicular access through the site. However, it is expected that these will follow the topography and weave around existing trees to avoid ground-works and mitigate against the need for additional vegetation clearance.

11.3 Storage, Management & Disposal of Materials

Due to the prefabrication of many building elements off-site, it is expected that there will be little construction waste in terms of materials brought onto site. The main waste will be from earthmoving works, however as described in 11.2 this is expected to be limited.

The construction will follow the hierarchy of reduction, reuse and recycling with regards to all waste generated. Waste generated will be reused on site to support

the construction of building and landscaping elements wherever possible. Any waste that cannot be reused on site will be disposed of in a suitable manner, in consultation with Kangaroo Island Council.

For inert waste, a waste minimisation assessment identifying waste and methods for reduction, reuse and recycling will be undertaken as part of the CEMMP. Solid inert waste found on construction sites such as building rubble, concrete, bricks, timber, plastic, glass, metals, bitumen, trees and shredded tyres, will be preferably reused or recycled over disposal to a landfill site.

The monitoring of wastes and soils expected to be contaminated, will allow their timely identification. This will form part of the CEMMP. For contaminated waste, material will be excavated in a manner to avoid both on-site and off-site environmental problems. As such, any contaminated material or wastes should be sealed as quickly as possible after discovery, being collected and disposed by a licensed contractor.

11.4 Stormwater Management during Construction

Any changes to stormwater run-off as a result of the proposal must be appropriately managed during construction to avoid disturbance to down-stream environments, notably creeks leading to American River feeding into Pelican Lagoon. Any stormwater runoff from the land based facilities, in particular during or soon after construction, may contain an increased load of suspended sediments. These discharges will be monitored and filtered prior to discharge into the marine environment.

Drainage systems will be installed on-site prior to construction to manage stormwater around the site, including sediment controls. Such devices may include detention

dams, geotextile fences, straw bales, rock weirs, ponds and basins within identified drainage lines. Installation of temporary systems may take place before permanent stormwater management systems are in place. An assessment of the need for this will need to take place before construction and formulated in the final CEMMP.

Where unlikely to be impacted by construction activity, much of the landscape will be revegetated prior to construction, aiding in the management of stormwater during this phase.

11.5 Monitoring and Management of Impacts during Construction

The Proponent will take responsibility for managing and monitoring the impacts of construction on the surrounding environment; Working closely with the relevant government and island agencies for particularly the effects on local residents and endangered fauna.

The training of construction workers to operate in a sensitive manner and the appropriate timing of works will mitigate impact on sensitive fauna. Further details on this can be found in Section: *Assess 7 Environment*.

11.6 Noise Management

The site is relatively isolated, with residents scattered to the East and South of the site. To the East, dense planting will provide some screening to any operations, and associated noise. To the South, residents are predominantly located far from most of the proposed construction.

A plan will be developed as part of the CEMMP to reduce noise nuisance from vehicles, fixed machinery within the site, blasting, general construction activities, and the movements of vehicles servicing the site. The sharp intermittent noise of power tools will add to the somewhat

ambient noise levels introduced by the continually operating machinery such as earthmoving equipment. However, given the size of the site and exposure to winds, it is expected that the environmental setting will mitigate much of this noise.

To minimize noise pollution, in line with the Environment Protection (Noise) Policy 2007, the following steps will be taken:

- Develop suitable hours of operation, with regard to sensitive hours to local residents
- Develop a plan for any necessary out of hours work, with appropriate documentation by site management and informing of residents
- During normal hours reasonable measures should be taken to minimise noise production
- Fit and maintain appropriate noise reduction devices to machinery and vehicles
- Enclose noisy equipment where possible

11_Risk & Hazard Management American River Lodges

PART I

September, 2016

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RISK & HAZARD MANAGEMENT

This section describes the risk and hazard management frameworks for the proposal, in both construction & operation.

- 12.1 Public Safety
- 12.2 Fire Management
- 12.3 Emergency Evacuation
- 12.4 Storage of Hazardous Materials

12.1 Public Safety

Construction

During construction there should be no 'public' on the construction sites. The sites will only be accessible to contractors. To prevent unauthorised access the following procedures will be put in place:

- Boundary fence to be erected around all construction sites, in accordance with local government authority specifications.
- The boundary fence will be clearly identifiable and prohibit pedestrian and vehicle access to the construction site during construction works. All entrances will have appropriate site security to prevent public access.
- Any visitors to the construction sites must register at the site office.
- All visitors will receive a health & safety induction prior to admission to the site.
- All visitors must wear appropriate protective gear (including hard hat, steel toe-cap boots and high-visibility vest).
- Any accidents involving the public on the site will be handled by the Site Manager in accordance with the CEMMP.

Operation

Given the size of the site and the distribution of buildings across them, ensuring the correct safety procedures are in place is key to ensuring public safety during operation. The following procedures will be put in place:

- An appointed member of staff will act as the safety officer for the hotel site
- The safety officer will be responsible for reviewing the safety of the operation and where necessary take measures to implement improved safety
- The safety officer will manage all emergency situations that

- arise
- Hotel guests and other 'guest' visitors (such as restaurant users) to the site will be restricted from accessing dangerous areas such as kitchens and stores
- All suppliers and contractors on-site during operation will be required to register with site security before entering the site
- Emergency procedures will be clearly displayed in line with regulations in hotel rooms and public spaces
- All hazardous materials will be appropriately stored away from guest access

12.2 Fire Management

One of the key concerns for the development is the risk of bushfire. The majority of the development is classified as combination of Class 6 and Class 3 buildings, requiring bushfire protection. In South Australia there are strict requirements for development within bushfire prone areas, in addition to the requirements to the Building Code of Australia. The proposed development in American River is located in a medium bushfire risk area. Therefore the development is required to be undertaken in accordance with the Minister's Code, Undertaking development in Bushfire Protection Areas, February 2009 (as amended October 2012). The expected methods of fire protection are outlined below, however a full assessment in accordance with AS3959 is yet to be undertaken. Initial discussions have been undertaken with the County Fire Service to establish a fire protection strategy for the site, it is proposed that further discussions will provide full resolution.

In accordance with the Building Code of Australia the site will require a fire fighting water supply. The supply will consist of at least two dedicated fire tanks and two fire pumpsets provided to comply with the

requirements of AS2419.1-2005 and SAMFS/CFS Policy 0014 for fire tanks as follows:

- The size of the tanks will be in the order of 288kL or 4 hours supply based upon 20L/s
- The pumps will need to be suitably sized to provide the fire hydrants the required flow and pressure of 5L/s @ 700kPa
- The fire pumpsets (2 x diesel) and tanks will be located at the service entrance to site, along with a CFS booster assembly
- The fire pumpsets will be located in a building meeting the same BAL as the other buildings on the site
- Each lodge within the precinct will be provided with one or more hydrants (internal or external, as required) along with fire hose reels for bushfire protection

In accordance with Minister's Code the site will require the following:

- Suitable site entry/exit from the allotment for fire fighting services (personnel and vehicles), this will be provided at the northern and eastern entrances to the site
- Suitable access within and around the site; this will be provided via the access routes marked on Fig.72. This will for the most part be formed of an un-made but maintained dirt road. At times this is combined with the pedestrian and golf buggy routes.
- Careful placement of buildings to avoid areas that pose high bushfire risk, such as areas with rugged terrain or hazardous vegetation.

To minimize vegetation clearance, there will be no clearance along property boundaries or existing access tracks for fuel break purposes. Where possible modification to the existing vegetation will be undertaken within a 20m band of major buildings and maintained to a height of no less than 300mm which is considered sufficient to reduce fuel build-up but

not eliminate the species. However it is proposed that to minimise such vegetation clearance that each building be assessed individually against it setting, and provided the level of vegetation is consistent with the predominant vegetation of the area, such clearance may be avoided. This will form part of on-going discussions with CFS.

The addition of sprinklers on the exterior of and surrounding landscape to the buildings will provide water capable of suppressing fire. Butterfly sprinklers, raised above the height of the vegetation, will be spaced to ensure complete coverage and located within 10 m of all buildings. These sprinklers will saturate the vegetation immediately adjacent to the buildings thereby increasing the low level humidity, which has the effect of raising the radiant heat above buildings with the introduction of winds. Sprinklers mounted on the buildings will be located on the edge of the verandahs, limiting spark and ember attack and reducing radiant heat impact.

Depending on recommendations from the CFS firefighting foams may be included as a component of the fire management strategies and controls. To mitigate against any potential environmental effect on the native vegetation in the use of firefighting foams, they will only be deployed in emergency situations and will not be used on site for prescribed or controlled burning operations, their use being limited to areas directly adjacent to buildings.

Hotel staff will be appropriately trained to minimize the need for outside assistance in the event of a bushfire. This will include a number of staff undertaking courses appropriate to the fire risk and to the South Australian CFS standards expected for the site.

Design Measures for Protection against Fire

All buildings will be constructed to follow the principles of Australian Standards AS3959-1999, Level 3 Construction, as recommended for Extreme Fire Risk.

This will include:

- Non-flammable materials for all external surfaces
- All glazing toughened, with openings protected by stainless steel mesh
- Any underfloor spaces sealed with vents covered with stainless steel mesh
- Foil under all roofing and roof spaces sealed
- Provision for a designated room within the main lodge to be designed to a higher standard of fire resistance to provide a designated safe refuge

12.3 Emergency Evacuation

The site has 3 exits providing evacuation routes. The northern corner of the site accessing onto Thomas Road, the eastern corner of the site accessing onto Red Banks Road and the southern corner of the site accessing onto Buick Drive. Thomas Road and Red Banks Road are both densely vegetated and may therefore not provide safe means of egress. The exit to the south of the site will be preferred for emergency evacuation in case of fire. For medical emergencies, any of the routes may be appropriate.

Fire drills and equipment testing for all staff will ensure the appropriate procedures for bushfire management and evacuation are followed. In relation to medical emergencies, key resort personnel will be first aid trained, with supporting medical kit and supplies kept on site. It is expected that each lodge will have a limited first aid kit, with an expanded kit being kept in the service block. In case of the need for external

assistance, staff will be trained to follow this procedure:

- Staff call 000 which is connected to SA Ambulance Service in Adelaide
- First response group (KI Ambulance) to be notified and concurrently dispatched from Penneshaw and a backup from Kingscote
- An Adelaide based ambulance backup helicopter and treatment team is (Rescue Five 1) is placed on standby
- The first response group concentrates on assessment and communication and if applicable the need for additional resources such as the medevac helicopter
- If patient is required to be transferred to Kingscote hospital, they may be transferred to the backup ambulance en-route

12.4 Storage of Hazardous Materials

The storage of fuels and chemicals on the site poses an environmental risk that must be managed to avoid polluting waterways and land. Use of such materials will be kept to a minimum, and only those used regularly shall be stored on site in quantity. Those needed infrequently will be ordered as required. To prevent spills, storage units for chemicals and fuels are to be included in the service block in the eastern corner of the site. These units will be bunded to prevent any spilt material escaping, designed and installed in accordance to EPA guidelines. Key considerations will be height, material and access. These storage units will be designed to prevent puncture, with any storage tanks being fitted with automatic cut-offs to their dispensers.



→ Firetruck Access

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07_Appendix

American River Lodges

PART I
September, 2016

07

APPENDIX

- Referenced Reports Appendices
- Figures Page Reference
- DR Guideline Page Reference

Appendices Reference

<u>A.</u>	Infrastructure & Services Report (BCA Engineers)
<u>B.</u>	Native Vegetation Assessment (Botanical Enigmerase)
<u>C.</u>	Landscape Concept Plan (Botanical Enigmerase)
<u>D.</u>	Fauna Assessment (Envisage Environmental)
<u>E.</u>	Archeological and Heritage Assessment (K. Walshe) N.B. This report is to be updated - it contains incorrect information regarding location of Plaque & Anchor
<u>F.</u>	Design Review 1 letter (ODASA)
<u>G.</u>	Noise Assessment (Sonos)
<u>H.</u>	Stormwater Management (fmg Engineers)
<u>I.</u>	DR Guidelines (Development Assessment Commission)
<u>J.</u>	Feasibility Study - 'Island' (PARTI)
<u>K.</u>	Draft CEMMP & OEMMP (PARTI)
<u>L.</u>	Traffic Impact Assessment (infraPlan)
<u>M.</u>	Design Drawings (PARTI)
<u>N.</u>	Proposals (PARTI)

<u>Guideline</u>	<u>Design Quality</u>	<u>Page in PER</u>
	Guideline 1: The American River area has high landscape values (especially associated with the coast and Pelican Lagoon) and the township has a 'coastal village' character that provides a high level of amenity for residents and visitors.	80
<u>1.1</u>	Evaluate the visual impact of the resort and harbour and how it would integrate with the existing character of the American River settlement and surrounds.	88
<u>1.2</u>	Evaluate the proposal against the Principles of Good Design by Office for Design + Architecture SA, including input from the Government Architect led design review process.	90
<u>1.3</u>	Evaluate the proposal's relationship within its urban public context, in particular the interface with neighbouring residents, businesses and open space areas around the development site.	92
	<u>Economics</u>	
	Guideline 2: The proposal should make a positive contribution to the commercial and tourism functions of Kangaroo Island and American River.	94
<u>2.1</u>	Provide an economic analysis of the proposal, including the long term economic viability of the project as a whole and its key elements.	96
<u>2.2</u>	Describe the economic contribution of the proposal on Kangaroo Island, including the potential for the project to attract and enhance the business operations of other allied industries and commercial ventures.	98
<u>2.4</u>	Describe the impacts (if any) on the access to housing and accommodation options within American River and the wider locality for employees of the proposal.	100
<u>2.5</u>	Describe strategies to manage and make good the site, should the project fail during the period between the commencement of earthworks and final completion.	102

<u>Guideline</u>	<u>Infrastructure</u>	<u>Page in PER</u>
	Guideline 3: The proposal requires adequate and appropriate infrastructure provision, in particular a source of power and water from an existing network that currently has limited supply to meet current and future demand.	104
<u>3.1</u>	Outline the requirements for and likely location of infrastructure for water, power, gas, sewerage, stormwater management, waste management, fire fighting and communications systems.	106
<u>3.2</u>	Outline the implications of connecting to the power grid for the existing infrastructure and current users.	108
<u>3.3</u>	Describe an integrated water management strategy, especially Water Sensitive Design measures (including ways in which water use would be minimised), and the use and management of alternative water sources (i.e. wastewater, grey water and stormwater).	110
<u>3.4</u>	Describe the impacts of either developing a new wastewater treatment system or disposing to the existing off-site system. Address the expected volume to be treated, disposal method and whether/how it would be managed to maximise reuse/recycling (including storage requirements). Outline how the treatment system elements would be installed, if it is a phased development.	110
<u>3.5</u>	Describe stormwater and grey water management strategies to maximise recycling (including recycled water storage requirements) and the potential impact on groundwater resources, surface water resources and the marine and coastal environment (including Pelican Lagoon).	112
<u>3.6</u>	Detail the extent to which the facility would generate the need for upgraded infrastructure beyond the site boundaries (in particular, the existing wastewater treatment plant), especially any broader impacts for the Kangaroo Island community (including strategic implications for Council and/or utility providers).	114
	<u>Social Issues</u>	
	Guideline 4: The proposal is being developed within an existing settlement context. While all forms of development have impacts and will generate change, it is important to consider the manner in which the proposal could make a positive contribution to the social and community fabric of American River and Kangaroo Island.	116
<u>4.1</u>	Describe the characteristics of the American River community (including the nature of their occupancy, such as permanent residents, short-term holiday home residents or with primary production interests).	118
<u>4.2</u>	Describe how the community currently engages with the	120

<u>Guideline</u>	<u>Page in PER</u>
sites and how the development may influence future activities.	
<u>4.3</u> Consider the way in which the broader Kangaroo Island community interacts with the American River settlement and surrounds and how the development would influence future activity.	120
<u>4.4</u> Detail the likely size and composition of the construction workforce and employees required during operation, including "on island" support required for this workforce and the direct and indirect employment opportunities for the local community.	122
<u>4.5</u> Outline the impact on existing tourism and recreation services and facilities (including opportunities for growth or improvement).	123
<u>Aboriginal Heritage and Native Title</u>	
Guideline 5: The proposal is developed in a manner respectful of Aboriginal Heritage and Native Title rights and interests, consistent with relevant legislative requirements.	124
<u>5.1</u> Describe the measures taken in consultation with the Department of State Development (DSD-AAR) to identify the Aboriginal heritage in the project area including the outcomes of: - A request for a search of the Register of Aboriginal Sites and Objects maintained by the Minister for Aboriginal Affairs and Reconciliation. - Discussion with the relevant Aboriginal parties. - Engagement of an expert archaeologist/anthropologist to assist with the assessment of any heritage sites.	126
<u>5.2</u> Describe the measures put in place to manage the risk of damaging, disturbing or interfering with any Aboriginal heritage that has been identified by the consultation undertaken above and any plans to deal with the discovery of Aboriginal heritage during project works. If avoidance has not been possible in the project design phase, details the steps taken in consultation with DSD-AAR to ensure that any unavoidable damage, disturbance and interference is done in compliance with the Aboriginal Heritage Act 1988.	127
<u>5.3</u> Identify any Native Title issues in respect of the requirements of the Native Title Act 1993 (Commonwealth) and the Native Title Act 1994 (South Australia).	127
<u>5.4</u> Describe the impact on the appropriate Native Title Claimants and the consequent impact on the potential ongoing enjoyment of native title rights and interests by native title holders.	127

<u>Guideline</u>	<u>Management of Other Environmental Matters</u>	<u>Page in PER</u>
	Guideline 6: The proposal is developed cognisant of and in a manner which appropriately manages potential impacts and existing environmental values.	128
	Prior and Adjacent Uses	
<u>6.1</u>	Describe the impact of past and current land management practices on the environmental values of the site, especially any environmental constraints or degrading factors that may need to be addressed.	130
<u>6.2</u>	Describe any potential conflict with adjoining primary production, fishing and aquaculture activities, including measures to ameliorate any such conflict.	130
	Native Vegetation and Fauna	
<u>6.3</u>	Quantify and detail the extent, condition and significance of native vegetation (individual species and communities) on site (including the harbour area), that which needs to be cleared or disturbed (directly or indirectly) during construction (including ancillary clearing for bushfire safety or infrastructure), and the proposed framework for ongoing management, including opportunities for rehabilitation and revegetation.	132
<u>6.4</u>	Describe the effect of, and measures to appropriately manage the risk of introduced weed species on native vegetation, before and after construction, including species that may originate from landscaped areas or gardens.	133
<u>6.5</u>	Quantify and detail the abundance, condition and significance of terrestrial and marine native fauna populations that currently exist or may depend on habitat on site or along the routes of infrastructure for the proposal.	134 136
<u>6.6</u>	Describe direct and indirect impacts to fauna associated with the proposal, the extent of expected fauna and/or habitat loss or disturbance during the construction and operation phases (both on and around site/s) and the ability of communities and individual species to recover, especially for any threatened or significant species (including those listed under the EPBC Act and the South Australian National Parks and Wildlife Act 1972).	
	Geology and Soils	138
<u>6.7</u>	Describe the physical environment and hydrogeology of the site in relation to landforms, soil types, geology and surface drainage patterns, including any drainage to Pelican Lagoon and the marine environment.	