Southern Ocean Lodge PER Response Document

4 July 2006







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1. Introduction

1.1 Background to the project

The proposed development is located at Hanson Bay, on the south-west coast of Kangaroo Island, South Australia. The development is proposed by Baillie Lodges (the Proponent) and is for the establishment of Southern Ocean Lodge (SOL), comprising 25 contiguous accommodation suites and associated facilities including a main Lodge building / reception, spa retreat and staff village.

The proposal is to develop an environmentally sustainable nature-based tourism facility which would provide a range of education/interpretive wildlife experiences to a market not currently well catered for on Kangaroo Island. The aim of the project is to develop and operate Southern Ocean Lodge as Australia's leading example of premium nature-based tourism to offer an iconic accommodation experience to the tourism market for Kangaroo Island.

The buildings and site layout have been designed to provide an excellent standard of environmental diligence that maintains the existing character and landscape contours of the site. Materials and colours have been selected to address bushfire resistance and enhance the compatibility of the development with the existing environment and visual landscape.

The development site is set back more than 100 metres from the high water mark and comprises approximately one hectare of coastal land overlooking coastal cliffs, beaches and surrounding coastal vegetation. The site for the proposed buildings is accessible by way of an existing cleared access track and is in a location where the least amount of native vegetation clearance is required as coastal erosion has already created some bare patches.

The proposed site is located in the Kangaroo Island Council Development Plan's Coastal Landscape Zone, where tourism development of 25 units or less is considered a merit use in this zone.

The project was gazetted as a Major Development under the *Development Act 1993* and a Public Environmental Report (PER) was prepared by the Proponent outlining the proposal and providing information on the issues for the project. The public and government agencies were given an opportunity to examine the PER and provide a submission to the Proponent over a six week period. This report summarises the issues raised in the submissions and the Proponents response to queries and concerns raised through this process.

1.2 Submissions received and structure of the response document

A total of 223 submissions were received in response to the Southern Ocean Lodge PER; 10 were in full support of the proposal, nine raised issues or made comment on the proposal but were not opposed, 11 were in favour of the proposal if it were in a different location on Kangaroo Island and 193 were opposed to the proposal. There were 188 submissions from the general public (of which 21 were received after the deadline of May 17 2006), 11 from state government agencies, two from local government and one from a member of parliament. Upon receipt, all submissions were numbered and recorded by Planning SA. Planning SA retained each original submission and copies were forwarded to the Proponent.



Appendix A contains a list of all respondents. For each respondent it lists the submission number (assigned by Planning SA), name of the respondent, suburb of the respondent and type of submission (e.g. Individual submission, Proforma Submission). There were three proforma submissions received which have been identified as Proforma Submissions A, B and C.

Appendix B contains summaries of all the government submissions. In Appendix B, each government submission is referenced by the submission number and the name of the author, and individual comments within each submission are labelled alphabetically as a, b, c, etc. Column 4 lists the section of the PER relevant to the comment; and column 5 lists the section of this response document in which the comment is addressed.

Appendix C contains a list of the key issues raised in the public submissions, many of which are similar to the issues raised in the government submissions. A brief reference or response to each issue is provided within Column 2 of this table.

The structure of this document is based on the issues raised in the government submissions. The key issues have been addressed and the document has been divided into sections based on the issues raised. The particular comment or issue is presented in italics and is then immediately followed by the Proponent's response in plain text. Some submissions made comments on topics that were beyond the scope of the Guidelines (see Appendix A of the PER). There is no obligation for the Proponent to address any comment made on the PER that was "Not in the Scope of the Guidelines" (NSG) and these comments are generally not considered further, other than being noted in Appendix B and C in this Response Document.



2. The PER process

On 23 June 2005, the Minister for Urban Development and Planning ("the Minister") made a declaration in the Government Gazette for the proposed Southern Ocean Lodge to be addressed as a Major Development under the provision of Section 46 of the *Development Act 1993*. The Major Development Assessment Process is outlined in Figure 2.1 and is summarised below.

The Minister referred the application to the Major Developments Panel ("the Panel") which is an independent statutory authority that has the task of determining the appropriate level of assessment for a Major Development and setting the Guidelines against which the proposal will be assessed.

The Panel reviewed the existing documentation on the project and prepared an Issues Paper which outlined the key issues associated with the proposal. The Issues Paper was released to the public and comments were received from the public and government agencies. The comments were considered by the Panel in determining both the level of assessment and developing the Guidelines.

The opportunity for public submissions on the Issues Paper has closed but the Issues Paper can still be accessed free of charge to obtain further information about the proposal at Planning SA, and the Kangaroo Island Council. It can also be viewed at Planning SA's "Major Developments Panel" website: http://www.planning.sa.gov.au/md_panel/index.html.

The Panel then has three levels of assessment which can apply to the application – Environment Impact Statement (EIS), a Public Environmental Report (PER) or a Development Report (DR). The EIS is the highest level of reporting required and involves extensive investigations, followed by the PER and DR which require less investigations, as set out in Section 46C of the *Development Act 1993*.

Following consideration of the public and government comments, the Panel determined that the assessment of this proposal would be undertaken as a Public Environmental Report (PER).

The purpose of the PER is to describe the outcomes of investigations on the issues identified on the Panel's Guidelines and through the public consultation period. A copy of the Guidelines for this proposal is contained in Appendix A of the PER with reference to the relevant section of the PER where the issue is addressed.

The PER was prepared by Parsons Brinckerhoff Australia on behalf of Baillie Lodges in accordance with the Guidelines. The Panel's role in the assessment process is now fulfilled, and the Minister will continue with the assessment process under Section 46 of the *Development Act 1993* from this point. The object of Section 46 is to ensure that matters affecting the environment, the community of the economy to a significant extent are fully examined and taken into account in the assessment of the proposal.

The PER has been provided to the Environmental Impact Assessment (EIA) Branch of Planning SA which, on behalf of the Minister, places the document on public exhibition. This exhibition period was from 1st April to 17th May 2006. The public, councils and agencies had 30 business days to comment on the report and lodge a submission. During the consultation period a public meeting was held on 19th April 2006 by Planning SA to assist any persons in preparing a written submission by providing information about the proposal, the process and the relevant document.



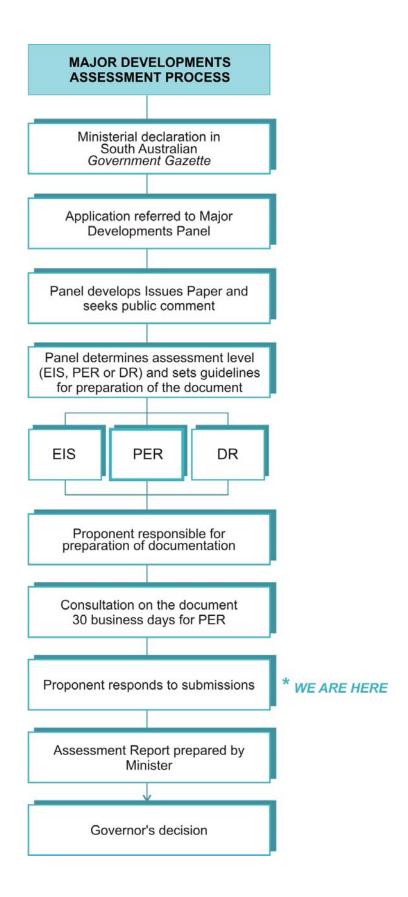


FIGURE 2.1 Major developments assessment process



The Proponent has now prepared a written response in a "Response Document" to the matters raised by the Minister, Councils or any prescribed or specified authority or body may be considered as the Minister thinks fit.

The Response Document has been prepared by Parsons Brinckerhoff Australia on behalf of Baillie Lodges in order to respond to all public and government comments submitted with regard to the released PER. Once the Response Document is submitted to the Minister an Assessment Report is produced by Planning SA on behalf of the Minister.

The Assessment Report will set out the Minister's assessment of the proposal, the Minister's comments on the PER, public submissions and responses and comments from other agencies. Any other comments can be included into the Assessment Report.

The documentation and the analyses from the assessment process will then be used by the Governor in the decision-making process, under Section 48 of the *Development Act 1993*, to decide whether the proposal can be approved, and the conditions that will apply, if an approval is granted.

The Governor is the relevant decision-maker under Section 48 of the *Development Act 1993*, when a development application is subject to the PER process.

In arriving at a decision, the Governor must have regard to:

- provisions of the appropriate Development Plan and Regulations
- if relevant, the Building Rules
- the Planning Strategy
- PER and Assessment Report
- if relevant the *Environmental Protection Act 1993*.

The Assessment Report and Response Document are to be kept available for inspection and purchase at a place and period determined by the Minister. Availability of each of these documents will be notified by advertisement in The Advertiser newspaper and local press.



3. Summary of government issues

3.1 Site location, selection and evaluation

Comments: Query the site selection process, the evaluation of alternative sites and potential to locate the development successfully elsewhere.

Response

Guideline 5.1.3 requested, "Justify the selection of the proposed location from an environmental and economic perspective in comparison with alternative sites on the Island, particularly less vegetated sites".

The selection process was described in Section 3.1 of the PER. The *Responsible Nature Based Tourism Strategy 2004 – 2009*, jointly developed by the South Australian Tourism Commission (SATC) and the Department of Environment and Heritage (DEH), identified the need to facilitate at least three memorable nature based accommodation developments in strategic locations in South Australia. Kangaroo Island is identified as a strategic location for nature based tourism accommodation (see South Australian Tourism Plan Strategy 3.2.2). The Tourism Plan recognises the need to develop viable medium scale nature based and coastal accommodation that is competitive with interstate accommodation providers. In order to become competitive a premium experience is required and this includes the opportunity to experience a unique and spectacular landscape.

The Proponent has had extensive experience in site selection and the core attributes required to ensure the economic sustainability of premium nature based developments. In a previous role responsible for new opportunities at P&O Australian Resorts (now Voyages), the Proponent visited Kangaroo Island as a guest of the then SA Government (1997) to review the potential opportunities for a premium nature based lodge in a wide variety of locations. Extensive analysis of sites had been undertaken by the SATC and these largely focused on the North Coast. Shortly after this visit it was decided by P&O not to proceed with any of the locations as it was thought that they generally lacked the unique natural credentials to attract the emerging market of discerning experiential tourists. Since that visit the Proponent has kept a watching brief on possible opportunities within or bordering the key national park areas of the Island.

After leaving the employment of P&O, the Proponent established Baillie Lodges with a focus to create Australia's first portfolio of high end Lodges in places of natural significance. Kangaroo Island was top of that list. Numerous site visits were conducted in 2002 & 2003 which included aerial surveys and title analysis to locate potential sites that were freehold and had the required natural coastal credentials. It had already been established that the Kangaroo Island Development Plan envisaged such boutique scale sensitive development in the Coastal Landscape Zone.

The north coast of Kangaroo Island has been substantially cleared and developed for farming and holiday houses. Potential sites at Western River and Snug Cove were discounted given the area consisted of cleared farmland with lower presentation values and higher distance from core natural attractions.

A more detailed reconnaissance of the south coast followed as the Southern Ocean landscape provided a unique sense of place and proximity to major points of interest. A number of sites on Vivonne Bay were reviewed and subsequently discounted due to availability, marginal fit to the site selection criteria and lack of coastal viewscape. The



existing Hanson Bay Cabin site was also considered and rejected given an incompatible fit with the existing "shacks".

In essence there are very limited locations that meet the necessary criteria and most of these are in existing National Park reserves. The Proponent believes that the assertion that Southern Ocean Lodge is "the right development in the wrong location" lacks a core understanding of premium markets, available sites & the natural attributes required to make the project a success. A case point is the recently proposed luxury tented style lodge near Seal Bay - industry feedback provided to the Proponent is that market research considered the site to lack the essence of Kangaroo Island and would fail to meet the expectations of primary international clientele.

The submission received from the Department of Trade and Economic Development endorsed the development and its objectives:

"Tourism development of this kind is generally unrepresented in South Australia's tourism portfolio... Developments such as Southern Ocean Lodge will greatly assist in diversifying and raising the profile of South Australia's tourism product, which will help to boost the industry's longer term competitiveness".

"Suitable "iconic" locations are not common in South Australia, particularly where tourism spending can be extended across a range of other sectors. Kangaroo Island has an advantage in maximising these benefits due to its favourable environmental attributes and the existing range of goods and services that are both necessary and complementary to enhancing the tourism experience."

3.2 Vegetation clearance and impacts on threatened species

3.2.1 Area to be cleared

Comment: Query the calculation of the area to be cleared and affected by the proposal (including access tracks, etc).

Vegetation clearance figures are provided in Section 6.3.2 of the PER and description of which areas are included is outlined therein. A more detailed breakdown of the clearance areas are as follows (refer Figure 3.1 for the location of these areas).

Aspect	Area (in square metres)
Walking trail from suites to eastern boundary	260
Walkway at rear of suites	370
Walkway from lodge to staff village and spa retreat	205
Entrance walkway	45
Walkways around staff village	560
Building area (including terrace)	4,850
Service roads and car parks (excluding existing entry road)	3,100
Construction access (to be revegetated following construction)	600
TOTAL	9,990 (i.e. approximately 1 hectare)



The above figures (in square metres) were calculated using Computer Aided Design (CAD) and the results of the vegetation survey. The main access tracks into the site were not included in the area of vegetation removal as they are existing and require only minor pruning to maintain access. Clearance figures include suites, staff village, lodge, spa retreat, internal roads, pathways and car parking.

3.2.2 Pruning for fire safety

Comment: Pruning of vegetation surrounding buildings to 300mm for fire safety is not considered minor and may impact on long term structure and ecological function of the area.

A significant proportion of the existing vegetation on the site (particularly in the southern and western areas of the site) comprises low coastal vegetation and the potential impact of clearing is considered to be minor. The vegetation assessment considered that pruning of the remaining vegetation within 20 metres of the buildings would provide an appropriate balance between the objectives of fire safety and vegetation retention. It is recognised that pruning of the vegetation will alter the habitat structure in some areas, however the retention of vegetation will assist in minimising erosion on site and will continue to provide habitat as well as aesthetic value. The areas to be pruned have been included in the calculation of cleared areas and will be offset under the provision of Significant Environmental Benefit to the Native Vegetation Council.

3.2.3 Erosion and regeneration

Comment: Sensitivity of the site to erosion and ability of site to regenerate once disturbed particularly in regard to the natural scald occurring on the site.

The PER acknowledges the sandy soil conditions on the site and the potential for erosion to be accelerated by disturbance. Accordingly, a number of strategies have been proposed (as outlined in the EMP in Sections 21 and 22 of the PER) to minimise impact and assist in regeneration, including:

- Building on an area that is already subject to natural erosion.
- Minimising and staging site clearance to reduce impact.
- Cleared vegetation will be mulched and reused on site.
- The disturbed area will be revegetated with locally indigenous species utilising seed stock collected on-site prior to construction.

Strategies to manage and mitigate erosion will be implemented as part of the EMP for the development, as stated in Section 22 of the PER. Further information on access tracks is provided in Section 3.6.2 of this report.

3.2.4 Native Vegetation Act 1991

Comment: Considered to be at variance with a number of the Principles of Clearance under the Native Vegetation Act 1991.

As the project is deemed a Major Development, the consent of the Native Vegetation Council is not required however their comments will be taken into account during the assessment. The development has been designed to minimise the impact on native vegetation at the site as much as possible and revegetate wherever appropriate.



Baillie Lodges support the concept of placing a value on native vegetation and determining and providing a level of significant environmental benefit, appropriate for the loss of vegetation associated with the development.

3.2.5 Potential impact on flora species

Comment: Potential impact on three species listed as vulnerable under EPBC Act 1999 for the region but not observed on the site. What is the potential for these species to occur given the appropriate disturbance activities (e.g. as a result of regeneration events after a fire).

The PER outlines that the Twining Hand-Flower and Kangaroo Island Spider Orchid are unlikely to occur in the area as the surrounding habitat does not support the species. They have not been recorded as occurring in the locality or surrounding area according to the DEH records. As outlined for the above two species, it was also found that the Ironstone Mulla Mulla is unlikely to occur in the site area.

The species described above are disturbance specialists and may arise after specific activities such as fire, however, unless such a disturbance occurs it is very difficult to determine whether they are present. Considering that the Department for Environment and Heritage records indicate no known populations of the species recorded over time in the surrounding area, and they were not observed on the site despite the survey being undertaken at the time when they are most likely to be prevalent, it was concluded that they are unlikely to appear as a result of regeneration events. As part of the ongoing environmental management of the site, monitoring of both flora and fauna species will be undertaken and any occurrences of previously unrecorded species will be noted. This will include the three species listed as vulnerable under the EPBC Act 1999, as well as the Kangaroo Island Trigger Plant, and the Bush Stone Curlew. Appropriate management techniques will be implemented should a siting occur.

3.2.6 Potential impacts on Osprey and other avifauna

Comment: Proposed buffer of 250 m to Osprey is not considered to be conservative. Given the distance between the nest site and the development, there is scope to increase the buffer and strict measures such as physical barriers should be implemented. Reporting of the impacts on the Osprey is inconsistent between the two survey reports in the PER. Construction should take place outside the breeding and migratory season.

Two surveys were undertaken for the project – one in December 2004/January 2005 and a second in January 2006 following the project's declaration as a Major Development and the release of the project Guidelines. It is acknowledged there are some differences in the reporting between the two surveys. The second survey was able to more closely investigate the key species as requested in the Guidelines including the Osprey. Additional research was undertaken at this time as to their habits, tolerance for disturbance and case studies of human impacts on nesting.

This research indicated that in other cases, 150 metres was considered to provide a suitable buffer between human activity and the Osprey nest. However the Proponent suggested a buffer of 250 metres could be provided to ensure a generous distance between the nest and any on site activity. The proposed development is located more than 1 kilometre from the nest. The only access to the area is by foot over rough terrain and it is considered unlikely guests would venture this far. However, the Proponent proposed in the PER to implement the 250 metre buffer and manage access by using signage and educating guests and staff.



In response to the concerns raised, Baillie Lodges proposes to increase the buffer to 500 metres during breeding season (June to October) using techniques outlined in the PER.

Whilst having increased the buffer distance, it is also worthy of drawing attention to research which indicates the high level of tolerance of the Osprey to human interference. David Palmer (www.bigvolcano.com.au/stories/ospreys/ospreys.html) states that breeding observations by NSW National Parks and Wildlife Service in 1998 identified that the 'resilience of this species [the Osprey] is truly remarkable'. "Successful breeding was observed in spite of sugar cane being burnt directly beneath it, and another tolerated the interference of an observer mirror being attached [to the nest]...". Further evidence of the Osprey's acceptance of human interference is the successful implementation of breeding platforms constructed by NSW National Parks and Wildlife Service and electricity distributor NorthPower. The program was met with great success, with about 20 pairs Ospreys comfortably settling onto artificial breeding platforms along the coast of northern NSW. (Source: NSW NPWS News Release October 13, 1997)

Confirmation of the breeding season has been carried out. The first survey report undertaken in December 2004/January 2005 suggested the breeding period was July to February. However, this period included nesting, laying eggs, hatching, fledging and nurturing period. More detailed research on the Osprey has confirmed that the actual breeding season is more likely to be June to October. Mating and nesting usually occurs from June. The Osprey lays 2-3 eggs and chicks hatch within 33-35 days. Fledging usually occurs about 50 days after hatching. The nurturing period (October to February) is not generally considered to be part of the breeding season. Planning the major site disturbance activities to avoid the June to October breeding period will ensure there is minimal impact on the species.

The construction schedule as outlined in the PER, reflects that the major site works (clearance and foundation for the main Lodge building) are to be undertaken outside the Osprey breeding season. It is expected that the low impact activities such as construction of the staff village which consists of lightweight buildings could occur prior to this. As outlined in the EMP, monitoring of the Osprey would be undertaken to observe the timing of any breeding and subsequent hatching to ensure any variations in timing can be taken into account.

Detailed information on the research undertaken on the Osprey is contained in 6.4.2 of the PER and Appendix I. The PER also contains several references which were utilised to confirm appropriate timing of activities to avoid breeding season including the websites listed below.

http://threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10585 http://www.birdpedia.com/au/bi.dll/bipu02?m=001&b008=osprey&id952=0&id516=0

http://www.fnpw.com.au/OurProjects/Plants_Wildlife/OspreyPages/AboutOsprey.htm

It is not considered appropriate to implement physical barriers for the buffer as they would in turn create issues for flora and fauna on site, such as limiting movement and access. The terrain itself certainly discourages human access which, when combined with education and signage, is considered appropriate. It should be noted that the Osprey breeding area is located in the coastal reserve controlled by Department of Environment and Heritage and adjacent to the freehold land owned by the Proponent. It is suggested that if a barrier is considered imperative, the Department should officially close the coastal cliff walking trail from Hanson Bay to the public which has been in use for some time. The Proponent proposes to implement the buffer appropriately on the Lodge land but cannot control the movements of members of the public along the coastal reserve.



http://threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10585 http://www.birdpedia.com/au/bi.dll/bipu02?m=001&b008=osprey&id952=0&id516=0

Comment: Potential impacts on other species such as Sea-Eagles, Falcons and Hooded Plover have been underestimated. Potential impact on Collared Sparrow Hawk and Nankeen Kestrel requires further explanation.

The potential impacts on Sea-Eagles and Falcons were assessed in Section 6.4.2 of the PER. No nest sites were identified on the subject land and while the birds were observed nearby it is not expected that the proposal will impact on the species. The PER proposed monitoring of the species to ensure any new nests are identified.

The potential impacts on the Hooded Plover were examined in the PER and a number of measures were proposed to minimise any potential impact on the species. These include following the management measures the Department of Environment and Heritage use at nearby sites which are significantly more inhabited, including Hanson Bay which consist of signage, education and management of access.

Nankeen Kestrels and Collared Sparrowhawk are not listed as being of state or national significance but are listed as migratory birds under the *EPBC Act*. Both species were observed during the survey but the potential impact is considered to be minimal as only a small portion of their potential foraging area will be impacted upon. No nests were observed during the survey and individuals were observed at a low density which is to be expected with these species.

3.2.7 Endangered fauna

Comment. Need for ongoing monitoring of species such as the Kangaroo Island Dunnart and the Southern Brown Bandicoot.

The PER describes the Proponent's intention to have educated staff and interpretive activities. Part of their role would be to monitor the environment around the lodge, record any sightings and implement appropriate management techniques. This includes monitoring of species known to be on the site as well as observing and recording any species not previously recorded on the site such as the Kangaroo Island Dunnart and Southern Brown Bandicoot. This monitoring will enable the Lodge to observe the impact of programs such as revegetation and feral cat management to measure their success and to implement appropriate management techniques in the case that an issue arises.

3.3 Conservation significance and ecological connection

Comment: Importance of ecological connection between Flinders Chase National Park and Kelly Hill Conservation Park and potential impact of clearing vegetation within this corridor. The fragmentation of the coastal zone by the development and associated clearance. Importance of site in relation to South Australian Strategic Plan target of 5 well-established biodiversity corridors by 2010.

The total area of the development is 1 hectare within a 100 hectare allotment. As the area to be affected is minimal and a 100 metre buffer is retained between the High Water Mark (HWM) and the development, it is considered that the link between Flinders Chase and Kelly Hill will not be adversely affected. The site is located on freehold land and has not been acquired as reserve by the Government despite the opportunity being available in the past.



The DEH NatureLinks initiative promotes ecological restoration through the development of large-scale, integrated conservation projects across land and sea. This will be pursued through the long term objective of establishing connected habitat across South Australia, comprising a comprehensive system of core protected areas, buffered and linked by lands managed for conservation objectives. NatureLinks will involve developing partnerships with land managers and other stakeholders to integrate biodiversity conservation with other natural resource management activities. The subject land is located in a potential 'NatureLink' area and the Heritage Agreement proposed by the Proponent will provide certainty for the program in reserving areas of remnant vegetation towards this goal.

Baillie Lodges have instigated preliminary talks with DEH executives who have indicated support for proposed initiatives, which provide the opportunity for the conservation of biodiversity to be balanced with economic development. One of these initiatives is the establishment of a Heritage Agreement over the remainder of the site.

From an environmental perspective the key benefits of a Heritage Agreement are:

- it offers an absolute guarantee that the remaining vegetation will be protected, and
- it would complement the existing network of parks and conservation areas within the South Coast Regional Ecological Area and assist in achieving a biodiversity corridor linking Flinders Chase National Parks with Kelly Hill Caves Conservation Park.

If a similar Heritage Agreement could be secured over the adjoining two parcels of coastal land (to the east and west) this would achieve a biodiversity corridor between Flinders Chase National Park and Kelly Hill Conservation Park that is consistent with the Government's Cape Borda to Barossa NatureLinks Strategy and Target 3.4 in South Australia's Strategic Plan: Have five well-established biodiversity corridors linking public and private lands across the state by 2010.

Comment: Impacts on species of conservation significance should not be overlooked on the basis that they are adequately represented on adjacent property. The expected levels of impact on the environment and threatened species are over-simplified. Where the level of impact is not easily known prior to the event the impact should be considered to be high.

It is a well accepted methodology in undertaking environmental assessments that where species are adequately represented in adjacent areas the potential impact is considered to be minimal. The potential was assessed at both the local and regional scale and the prevalence of each species in the region was considered. The potential impact is considered to be diluted where a species is prevalent in adjacent areas. The PER concluded that it is unlikely there will be a significant impact on the species as they are well represented within the region and as such the proposed development will not pose a long-term risk to the survival of the species.

3.4 Bushfire protection and clearance

3.4.1 Source of fire fighting water supply

Comment: Unclear as to the source of water for fire fighting and quantity required.

Rainwater will be the main source of water for fire fighting and will be supplemented if necessary with bore water. A dedicated water supply of 240,000 litres (which has been revised from the previously calculated 200,000 litres) will be provided for fire fighting.



Comment: Elaborate on Guideline 5.2.23 "Identify the need for fire management to maintain biodiversity on site and the implications for bushfire protection".

Baillie Lodges are unaware of any examples where private landholders of remnant vegetation are using fire management to maintain biodiversity. Fire management for biodiversity is complicated by a range of issues including:

- Fire management or burning is regarded as clearance under the provisions of the Native Vegetation Act. It is unlikely the Native Vegetation Council would approve any proposal in isolation for fire management.
- Fires are natural occurrences and it would be very difficult in isolation to determine the frequency, timing and size of areas to be burnt.
- There are dangers and liability issues associated with burns that get out of control.

To be beneficial, fire management for biodiversity purposes would need to be addressed as part of a regional fire management plan for the western end of the Island that incorporates all surrounding native vegetation (both private and public). This would be best managed and coordinated by DEH in discussion with private landowners.

Comment: What are the potential environmental impacts from using fire fighting foam in a coastal area?

The fire protection system does not rely on the use of fire fighting foam however its use is being investigated and will be the subject of ongoing discussions with the CFS.

As outline in Section 17.8.2 of the PER, research on the impacts of the use of fire fighting foam on native vegetation and coastal areas in Australia is limited. The CFS, DEH and Forestry SA currently use fire fighting foam extensively in regional fires including on Kangaroo Island (this use is regulated by Standard Operating Procedures). Based on current available information, it is considered that the use of foams (and any potential impacts) is the preferred alternative to restricting its use.

Comment: Sprinklers system and fire fighting water storage capacity seems inadequate.

The fire protection system was designed after consultation with Brian Menadue (Senior Development Assessment Officer, Development Assessment Unit (Bushfire Protection), Country Fire Service) and John Cribb (Commercial and Domestic Fire Services). Amendments are proposed to the fire protection system to address the concerns raised in the submissions (refer revised drawing 392-M-12c in Appendix D). The number of butterfly sprinklers have been increased from 97 as indicated in the PER to 207. Revised calculations indicate 200,000 litres will be required to enable continuous operation of all sprinklers for a minimum of one hour. Additional capacity of 40,000 litres will be available for use by hose reels. This will be more than adequate given not all hose reels will be used at the same time or continuously. Therefore, a dedicated water supply of 240,000 litres will be provided for fire fighting purposes.

3.4.2 Fire hazards

Comment: Regarding provision being made for additional protection of diesel and gas storage in the event of a bushfire.

The storage of diesel and gas must comply with statutory building requirements. This will be addressed in detail at the building rules assessment stage.



In summary, diesel will be stored in 1 x 30,000 litre above ground self-bunded tank (double skin with vacuum). Storage will meet EPA requirements and relevant Australian Standards (e.g. AS1692 – Steel tanks for flammable and combustible liquids and AS1940 – The storage and handling of flammable and combustible liquids) and flame proof vents will be utilised. Diesel tanks of similar construction and design are commonly installed in bush fire prone parks.

Comment: Numbers of people that can be accommodated in the safe bushfire refuge, would it be necessary to also use the beach.

The building will be designed with a safe refuge within which staff and guests can be accommodated without the need for evacuation. The designated safe refuge will have a floor area in excess of 350 square metres. This will provide the capacity to accommodate well in excess of 70 persons, which is the maximum anticipated numbers of staff and guests on site at any one time.

Baillie Lodges will liaise with CFS regarding the details of design/construction and operation of the safe refuge. These details will be further outlined at the building rules assessment stage.

Comment: Maintaining adequate levels of training and experience of enough staff to be able to carry out on site fire fighting and management of guests will be extremely difficult given the usual high levels of staff turn-over in the hospitality industry.

Baillie Lodges will liaise with the Country Fire Service (CFS) to ensure all key staff undertake training to CFS requirements appropriate to the fire risk. This training will be complemented by the Fire Management Plan that will provide a regular program of equipment testing and fire drills for all staff.

Baillie Lodges will explore the possibility of key staff becoming active members of the local (Western Districts Brigade) Country Fire Service and receiving ongoing training and fire fighting experience.

Comment: Description of fire risk.

The report has not attempted to list all previous fire events that have occurred near the site. Rather the report acknowledges that major fire events have occurred in the past and that the significant risk of bushfire must be accounted for in the design and operation.

These concerns have been taken into account in the siting and design of the buildings by ensuring:

- All buildings are constructed to AS 3959-1999 (Construction of buildings in bushfireprone areas), Level 3 construction as recommended for extreme fire risk.
- Comprehensive passive and active protection measures are in place including: vegetation modification, perimeter vegetation saturation, window protection, roof protection, hose reels, dedicated water supply and pumping systems and an on site fire unit. (refer 17.6.2 in the PER).
- There is a designated safe refuge that is constructed to an even higher standard of fire resistance (refer 17.6.1.3 in the PER). The safe refuge is less exposed than the guests suites to bushfire from the north and west orientation due to the location of the service



yard, staff village (that also includes modified vegetation and sprinkler protection) and the car park area.

All risks or circumstances that have the potential to result in fire ignition on site will be identified and addressed in detail in the Fire Management Plan that will cover prevention and operational issues.

The proposed bushfire risk management strategies (refer 17.6.1 and 17.6.2 in the PER) are designed for extreme conditions.

Comment: The report gives no reference to management strategies post fire.

Whilst post bushfire management was not identified in the PER Guidelines, in terms of fire impacts on the buildings; the building design has incorporated state-of-the-art fire protection measures however should damage occur it is envisaged that the buildings would be reestablished.

In the case of a local fire, revegetation of the area around the Lodge would be undertaken using appropriate species and techniques. If the site was impacted by a regional fire, the Proponent would undertake local revegetation around the Lodge as outlined above and would look to DEH for guidance on broader management plans to aid revegetation of the regional area in collaboration with other affected landholders.

3.5 Opportunities to provide benefit to local community and environment

Comment: Balance between economic benefits and disturbance to the environment.

The Department of Trade and Economic Development in its submission on the PER, noted that the economic success of the development will rest on the maintenance of the environment at the site as visitors have the clear expectation of experiencing an uncompromised natural setting:

"The proposal represents an opportunity to utilise natural assets to yield wide and long lasting benefits without adversely impacting on the asset value itself."

"The development of a world-class ecotourism facility will provide broader promotional coverage for the Island which is likely to draw a greater volume of visitors, thereby producing a net economic benefit... Kangaroo Island's reputable food industry could stand to benefit from the greater interstate and international recognition that will derive from increased visitation and tourism promotion, which could assist in export growth into key markets."

The Department also suggested that by targeting this "high end" niche market, it is unlikely to have an impact on other accommodation providers on the Island.

The Department for Families and Communities commented in the response that 'the impact on families and the community appears to be mainly positive i.e. the increase in employment both in the construction and ongoing operation of the lodge and the flow on benefits to the local economy.'



3.6 Infrastructure

3.6.1 Power

Comment: Investigation of alternative power supply options.

The Department of Transport, Energy and Infrastructure - Infrastructure Division submission stated that the use of diesel generator is the only viable solution to power at the western end of Kangaroo Island. The Department suggested that wind could have provided a reliable energy source but research has shown that it cannot provide reliable supply at all times. This supports the proposal Baillie Lodges put forward to use diesel generators and potentially use bio-diesel in the future when available to the site.

3.6.2 Access and tracks

Comment: Purpose of helipad area.

The proposed helipad is intended to only be used in the case of emergency such as medical emergency. It is not to be used for transporting guests or staff to/from the site.

Comment: Potential impacts of increased traffic on South West River Road and South Coast Road.

An assessment of the traffic impacts of the proposed development was included in the PER. It concluded that an additional 24 traffic movements each day will be expected as a result of the project. This is not considered to be a significant impact on the existing access via South West River Road or South Coast Road. The majority of traffic movements will be employees and/or deliveries with experience at driving on these types of roads and awareness of the potential issues for safety and fauna. While the Kangaroo Island Council is responsible for the road, the Department of Transport was also asked to comment on the PER and did not provide a submission on the proposal and potential impacts to South West River Road or South Coast Road. The Council's comment on use of the road was simply that if an upgrade was required it be at the expense of the Lodge. It is not envisaged that this will become necessary as a result of the development.

Signage on South Coast Road will be minimal and in a style similar to that indicating Hanson Bay Cabins (directional on road sign).

The Department of Transport, Energy and Infrastructure's comments include:

The Hanson Bay access road [South West River Road] is not seen as a major issue as a high proportion of the target clients are expected to be collected from the airport by SOL vehicles. Experienced drivers will ensure safer passage over the unsealed road.

Comment: An assessment of the impacts of road construction should be included. In particular the impacts on vegetation clearance, Phytophthora management and erosion.

No new roads or access tracks are proposed as part of the development. The potential impacts of vegetation clearance, including clearance for the upgrading of access tracks was included in Section 6.3.2 of the PER and covered under the Environmental Management Plan (EMP) for construction (Section 22). The EMP includes measures to address erosion in accordance with EPA requirements as outlined in the *Stormwater Pollution Prevention Code*



of Practice for the Building and Construction Industry. The EMP also outlines a Phytophthora Management Plan to prevent the spread of Phytophthora to/from the site during construction.

Comment: Concern about management of pedestrian access to the beach.

Guest and staff movements to the coast will be managed via a dedicated access track (see Figure 3.1), signage, orientation and guidance. The proposed access track joins the main Lodge walkway, creating a natural flow to the existing cleared boundary line track (compacted limestone) which runs to a low rocky headland well below the Lodge. This ensures that guests are not trafficking dune areas.

The dense nature of the coastal vegetation provides a natural barrier to guests making their own tracks, whilst the design of the Lodge terraces and balconies effectively discourages or inhibits direct access to the coast from the main Lodge or suite accommodation. The existing cliff top walking trail will not be shown on any Lodge material with the activities information highlighting the Hanson Bay to Kelly Hills walk. The Lodge will provide daily walks with its own naturalist guides. Given the interpretive experiential content this would be a far more likely activity than unaccompanied excursions through inhospitable scrub.

3.7 Land ownership and coastal reserve

Comment: Confusion about definition of coastal reserve/Proponent's land and access to cliffs and beach.

The Department of Environment and Heritage controls a coastal reserve along the entire coastline of SA (landward from the high water mark). The primary principle is to allow for a continuous coastal strip of land for public access to and along the coast.

The Proponent recognises in the PER that they cannot control access over the coastal reserve located between the Lodge land and the beach (30 metre reserve). The Proponent proposes to control access within the Lodge land using defined pathways and signage as outlined above but cannot and does not propose to prevent the public from continuing to access the cliffs and beach below the development. Managing access along this reserve is the responsibility of the Department should restrictions be required.

Comment: Determination of high water mark location and set back.



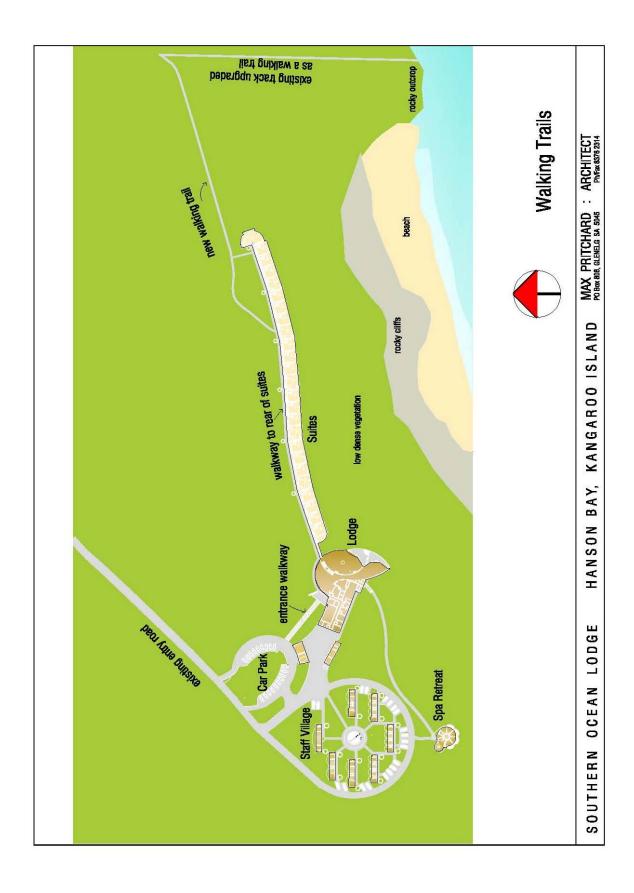


FIGURE 3.1 Walking trails



As there was no reliable data available, the mean high water mark was determined by KI Surveyors (Rick Andrews) by accurately recording tide measurements on site and relating these to tide charts.

3.8 Development plan and planning strategy

3.8.1 Development plan

Comment: Further assessment of Development Plan Principles relating to scenic value and definition of staff accommodation.

The key relevant objectives or principles from the Development Plan were examined in the PER and reviewed by a planning expert, Gary Mavrinac. Additional policies raised in the submissions have been examined where appropriate (below). It should be noted that many of these policies are similar in their purpose and are addressed as one issue. Therefore it is considered that all relevant objectives and principles have been addressed within the PER or this Response Document.

The statement in response from DEH that 'the development should be approved on merit' is a mis-quote of the PER document (pp 74, Section 7.3 paragraph 3) which states that 'The development is not listed as a complying or a non-complying development in the Coastal Landscape Zone; therefore the development should be *assessed* on merit.'

An assessment against the provisions of the development plan was undertaken as part of the PER (refer Appendix J in the PER) and it was stated that development should be assessed on its merits as the Kangaroo Island Development Plan did not state that it was a complying or non-complying development.

The development is described by Planning SA in the Guidelines as 'premium' nature-based tourism development including 25 accommodation suites and associated facilities that include a main lodge, spa retreat and staff village.

Staff accommodation is an 'ancillary' component of the tourism development in the same way as the restaurant or spa retreat. The staff accommodation should not be separately described as a multiple dwelling or residential flat building as defined by the *Development Regulations* 1993.

COASTAL LANDSCAPE ZONE Objectives

Objective 1: A zone comprising land which has high landscape qualities, where little or no urban development is located, and where the scenic beauty and natural features of the coastal landscape are preserved.

Response: The proposed development does not constitute urban development and visual assessment of the site from a number of key vantage points determined that the low profile development and siting below the ridgeline would minimise any potential impact on amenity (refer Section 12 of the PER).

Objective 2: The preservation and management of coastal land and features, environmentally important natural features, including lakes, wetlands, dunes, stands of native vegetation, wild life habitat, estuarine areas, exposed cliffs, headlands, hilltops and areas which form an attractive background to urban and tourist developments.



Response: The proposed development will ensure the site is more 'actively' managed than it has been previously with the objective also supporting the development by suggesting that the coastal landscape zone would provide an 'attractive background' to tourist developments.

Principles of Development Control – Form of Development:

1 Development should be compatible with conservation and enhancement of the coastal environment and scenic beauty of the zone.

Response: Considerable effort has been made to ensure the proposal is sympathetic to its environs. It should also be noted that development has not been excluded from the Coastal Landscape Zone and is not listed as non-complying.

- 3 Tourist facilities including accommodation should not be developed within the zone unless it can be demonstrated that the fundamental scenic and landscape features of the zone will not be adversely affected.
- 5 Development of land should not prejudice the landscape quality and natural bushland of the zone.

Response: The view shed analysis in Section 12 of the PER outlines that, based on building design, topography and the height of vegetation surrounding the site, views of the proposed development would be limited. The site may be visible from Kelly Hill Conservation Park, however the distance from the vantage point to the site would be some kilometres. Therefore the 'fundamental' scenic and landscape value of the area is not expected to be 'adversely affected'. Section 4.2 of the Response Document contains further information on the visual amenity of the coastal landscape.

With regards to the natural bushland of the zone, the proposed development will occupy a very small portion of the zones bushland setting and the quality of the adjacent natural bushland will be maintained through the ongoing implementation of the Operational Environmental Strategies as detailed in the EMP (Section 23 of the PER).

- 9 Development should be of a high standard of design with regard to external appearance, building materials, colours, siting, landscaping and provision for future maintenance, so as to preserve and enhance the appearance of land in the zone.
- 10 Buildings and structures should be sited unobtrusively or set-back from roads, and screened from view with vegetation so as to preserve the landscape qualities and amenity of the locality and the scenic character of the coastal environment.
- 12 Buildings and other structures should not detrimentally affect the conservation of the coastal landscape qualities of the zone.
- 13 Development should not be located on prominent sites or open land. Where land is in view from the coast or coastal road, the most unobtrusive portion of the allotment should be used, preferably where existing vegetation will substantially screen the development. Tree planting should be undertaken to screen any exposed views of the development.
- 15 Buildings and structures should not be prominently located on cliffs, headlands, or similar visually exposed locations.



Response: The proposed development has been designed to blend with its environment by using dark, non-reflective materials, locally indigenous species will be used in landscaping and the environment has been considered in all aspects of design (refer Section 4.3 of the PER). The main buildings will be set in to the ridge in order to reduce the bulk and scale of the development. Provisions for future maintenance have also been detailed in the PER to preserve and enhance areas adjacent to the development (refer Section 20 of the PER).

The proposed development will not be located on open land and the site will be screened by native vegetation. Additional planting of locally indigenous tress will also take place around the development. Section 12 of the PER has analysed where the development is in view.

GENERAL PROVISIONS Principles of Development Control

6 Buildings and other structures should be of a high standard of design with particular emphasis on the external appearance and siting of buildings so as to blend with, preserve and enhance the character and amenity of the locality.

Response: The buildings have been designed by well known Architect Max Prichard with an emphasis on the appearance and quality of the design. Dark non-reflective materials, non-reflective glass and local limestone will be used. Additional design features have been added to the roof to break up the lines and an 'island bush spirit' formed part of the design brief. Therefore the development has been designed to a high standard with the amenity and character of the locality forming the basis of the design.

8 Buildings should be sited below ridgetops or prominent points, set well back from watercourses, located to avoid vegetation clearance and landscaped to reduce visual impact. Specifically, the siting, design and construction should not impair the views from vantage points such as the sea, headlands, ridgelines and scenic routes."

Response: Refer to previous zone principles comment relating to siting, design and visual amenity.

Coastal Areas - Objectives

Objective 70: Sustain or enhance the natural coastal environment in South Australia.

Objective 71: Preserve and manage the environmentally important features of coastal areas, including wetlands, dune areas, stands of native vegetation, wildlife habitats and estuarine areas.

Response: The coastal and dune areas adjacent to the proposed development will be actively monitored and managed as part of the project to preserve the coastal and dune areas and the stands of native vegetation neighbouring the site therefore sustaining the natural coastal environment.

Coastal Areas – Principles of Development Control Environmental Protection

213 Development should not cause deleterious effects on the quality or hydrology of groundwater.



Response: The majority of water collected from roof areas will be stored on site and the bore being used is already in existence, as such the development is not expected to have a 'deleterious' effect on hydrology or groundwater.

217 Development which is proposed to be located outside of urban and tourist zones should be sited and designed to not adversely affect:

- (a) the natural, rural or heritage character of the area;
- (b) areas of high visual or scenic value;
- (c) views from the coast, near-shore waters, public reserves, tourist routes and walking trails;
- (d) the amenity of public beaches by intruding into undeveloped areas.

Response: Tourism development is envisaged in the Coastal Landscape Zone. Assessment as part of the PER has not highlighted any natural, heritage, visual, scenic or coastal areas that will be 'adversely' affected by the proposed development. Any potential impacts will be minimized through the mitigation measures proposed in the PER.

227 Development adjacent to the coast should not be undertaken unless it has or incorporates the provision of a public reserve, not including a road or erosion buffer provided in accordance with Principle 239, of at least 50m width between such development and the toe of the primary dune or the top edge of the escarpment, unless the development relates to small scale infill development in a predominantly urban zone.

Response: The proposed development will have a setback of approximately 65 to 70 metres from the escarpment where public access is possible. The provision for a public reserve has not formed part of the proposed development. As part of the Certificate of Title, a 30 metre coastal reserve occurs from the high water mark which could be considered a public reserve (Certificate of Tile is provided as Appendix C of the PER).

3.8.2 Planning Strategy

Comment: Further assessment of relevant policies from Planning Strategy.

With regard to **economic strategy 11**, the proposed tourism development will as suggested by the strategy ensure differentiation of the area as the unique natural environment will be a feature of the development (refer to the Guidelines for Sustainable Tourism Development in the PER, Section 2.6). The development has been designed based on 'natural and cultural attributes' and' market opportunities' as suggested by strategy 11b with extensive research completed prior to the development of the SOL concept. Strategy 11c relates to monitoring and managing tourist destinations which has been included in the PER in the form of the EMP.

Strategy 12b states 'Facilitate the development of innovative and environmentally sensitive nature retreats in appropriate natural areas.' The proposed development complies with strategy 12b as the project includes environmentally sensitive solutions to waste and water use, the building design is innovative and includes elements such as building orientation to reduce energy use. Flora and fauna surveys of the site, implementation of management measures and the EMP prepared as part of the PER will ensure the development is 'environmentally sensitive'.



Strategy 3b addresses land use policies that recognize conservation value and avoid inappropriate development adjoining these areas. The coastal landscape zone from the Kangaroo Island Development Plan reflects this strategy and the conservation value of the land has been considered in the design phase of the project. The biodiversity of the area has also been assessed as part of the PER with the conservation value of the area not likely to be compromised by the development.

With regard to **strategy 3e** local native species (with seeds collected on site) will be used in all re-vegetation and landscaping programs.

Strategy 5a relates to protecting visually important areas, visual amenity and visual impact of the development has been addressed in the PER (Section 4.5 and Section 12) with the assessment determining that the development would have a limited impact on visual amenity due to the design and siting of the proposed development.

Strategy 6g addresses the protection of dune vegetation, sea grasses, mangroves, samphire communities and algae in coastal, marine and estuarine areas. Mangroves, samphire communities and estuarine areas do not occur in the vicinity of the development. The development site is adjacent to an area of coastal dune located some distance from coastal waters. The presence of a 30 metre cliff between the site and the ocean along with the EMP will assist in minimizing the impact from the development on sea grasses or algae.

Strategy 17 states that development should take into account bushfire management and prevention. This has occurred for the proposed development in the form of a Bushfire Management Plan. Strategy 17 b relates to restricting development in bushfire prone areas, and the bushfire risk at the proposed development site will be managed effectively with the Bushfire Management Plan. A number of measures are proposed to aid fire safety including sprinklers, hose reels and building design.

Strategy 14c for the Kangaroo Island Planning and Development Area relates to the control of weeds, introduced animals and other risks to biodiversity. The PER outlines (in Part D) the controls that will be in place during construction and operation to reduce the risk to biodiversity. Strategy 14e relates to the management of visitor thresholds at sustainable levels, the proposed development is on private land therefore visitor numbers will be controlled with a maximum number of visitors at the site at any one time which is considered sustainable.

Strategy 14f states that development outside townships should avoid compromising the islands natural and rural landscape qualities, habitat and scenic views. Southern Ocean Lodge is not expected to affect the Island's natural and landscape qualities with any potential impacts of the development only occurring at a more local scale.

The productive garden has been removed from the proposed development. Reference to the garden in Appendix J of the PER should have been removed.



4. Other issues

4.1 Water use, collection and treatment

Comments:

- Collection of water run-off for construction and operation.
- Ability of soil to address water management as suggested in PER.
- Capacity for rainwater to be sufficient to meet needs at all times.
- How will water be treated and what are the potential impacts.
- What are the potential impacts if treated rainwater overflows when tanks are full.
- Use and condition of bore.
- Potential for water erosion to occur during construction and operation.
- Assessment of the existing soil and landform type should be undertaken.

The submission from the Environment Protection Authority suggested that the Proponent's intended methods of controlling erosion during construction and implementation are appropriate, including the staged clearing of vegetation and subsequent revegetation.

Water will be diverted away from buildings during construction. It is not envisaged that water will need to be diverted from the buildings once they have been constructed. Surfaces surrounding the proposed development will be permeable (roads and paths will be crushed limestone) therefore runoff during operations will be minimal. In the event that excess stormwater is generated this will be dispersed through sub surface seepage by a network of agricultural drains below the surface and adjacent to buildings and roads - thereby eliminating fast surface flows of stormwater.

It has been noted that duplex sand over clay soils do not occur at the site and that the limestone contains pore spaces rather than fractures. The interstitial pore space rather than fractured limestone does not significantly alter the expected groundwater situation at Southern Ocean Lodge. The permeable porous dune sands will allow water to permeate slowly to the limestone layer and water will then seep into the limestone and recharge the aquifer more slowly than if it was to flow into fractured rock.

The water management development report in Appendix E of the PER considered average annual rainfall data and roof area in the design of the water management system for the Southern Ocean Lodge. If rainwater tanks are at capacity after an extreme high rainfall period then the additional water will be diverted as described above.

The use of the bore is discussed as a potential option and approval for its use is not included in the PER. The bore is located on the adjacent Hanson Bay Sanctuary and its use is yet to be fully investigated. If utilised, water from the bore would be pumped to a dedicated 250 kL storage tank and treated to remove colour, turbidity and odour then disinfected for use in toilet flushing. Bore water, if utilised would also make-up the fire-fighting reserve volume (240 kL) and a ball valve would ensure that the volume of the tank was maintained.

A soil testing program was undertaken and the results included in Section 9.2 of the PER. These results were used in development of the site infrastructure including the water treatment system, and the siting and design of the buildings.



4.2 Visual Impact

Comment: Site is visible from trail between Hanson Bay and Kelly Hill Caves at a point 2 km from the coast.

A viewshed analysis was undertaken as part of the PER (refer Section 12) and the findings demonstrated that the proposed development would be visible from some locations, but only from a distance which would make it appear insignificant against the landscape.

The location from which the development would be visible on the trail between Hanson Bay and Kelly Hill Caves is situated 2 kilometres inland and more than 3 kilometres from the development. It is considered that the buildings would be barely visible at this distance given the low profile and sympathetic materials used for the construction. The accommodation cabins and shacks at Hanson Bay would be much more dominant on the landscape.

Comment: Located in an area of high scenic value according to Coastal Viewscapes of South Australia.

The Coastal Viewscapes of South Australia report prepared by Andrew Lothian for the Coastal Protection Branch of the Department of Environment and Heritage, has mapped the scenic values of South Australia's coast and identifies the site (or aspects of it) as being visible from points at sea. Mapping in the report indicates that the land seaward of the proposed development site has a value of 7.0 to 7.9 whereas the actual development site has a rating at 6.0 to 6.9 being of 'moderate scenic quality'.

This comment above suggests that the scenic value of this locality is greater than that represented in the maps accompanying Andrew Lothian's report. Whilst the comment argues that the 'key attributes of the sea/land interface' do extend beyond the 100 metres and therefore a higher scenic value is warranted, it provides no further details outlining what the key features are or the distance inland to which they may extend.

Interestingly, a previous study looked at coastal landscape values. The Kangaroo Island Coastscape Character Types and Coastal Landscape Assessment undertaken by Edwards G in 1987 for the Coastal Protection Branch DEH was also identified in Andrew Lothian's report (page 5). Similar to Andrew Lothian's assessment, the Edwards study identified this locality as having an 'average' coastal landscape rating.

Andrew Lothian's report bases his zones on factual distances from the Mean High Water Mark (MHWM). In this regard, Zone 1 comprises the 100 metres strip above the MHWM. Zone 2 comprises land inland of Zone 1 and is defined as visible from the sea in the Coastal Viewshed maps up to a distance of 5km. The report further recognised that in some localities (such as the top of cliffs) the zones may be too wide.

The site of the development is setback a minimum distance of 100 metres from the MHWM and is defined as visible from the sea in the Coastal Viewshed maps (Section 12 of the PER). The site of the development site is also located behind rocky cliffs and therefore cannot be considered at the water/land interface as suggested by DEH but rather within Zone 2, in accord with Andrew Lothian's report.

Two independent studies (commissioned and championed by DEH) deem the area of the proposed development to have 'moderate' and 'average' coastal scenic values.



4.3 Purpose of EMP

Comment: What is the purpose of the data collection proposed in the Environmental Management Plan and to whom will the data be reported.

The Department of Trade and Economic Development in its submission on the PER, noted that the economic success of the development will rest on the maintenance of the environment at the site as visitors have the clear expectation of experiencing an uncompromised natural setting.

Data will be collected for internal purposes as it is in the best interest of Southern Ocean Lodge to maintain its environment in accordance with its general duty of environmental care as it their most marketable asset (refer Section 3.5 of the Response Document).

Comment: Provisions for the wash down of vehicles when entering the site should be included in the EMP.

Vehicles will be visually assessed when they enter the site and the vehicles origin will be determined with regards to risk of *Phytophthora* transfer. The *Phytophthora* Hygiene kit and/ or wash down facilities will be used if required in accordance with Section 22.17.

4.4 Location of staff accommodation

Comment: Potential for staff accommodation to be located elsewhere to reduce vegetation clearance and impacts on site.

Southern Ocean Lodge's remote location necessitates the design of an integrated tourism development that is reliant on the providing on-site staff accommodation. It would not be feasible to locate staff accommodation separate from the Lodge for a number of reasons including:

- There are no more suitable sites available on the Proponent's land as the remainder is densely vegetated. The staff quarters are not visible from elsewhere on the site or external to the site.
- The staff quarters are contained within a modified vegetation area and provide the location for disposal of waste water (via irrigation).
- Locating the staff quarters on site significantly reduces traffic movements and increases safety (both for staff and particularly nocturnal fauna) for night time driving.

The standard and community ambience of the staff village is essential to attract and retain quality staff in the remote location. On going training, opportunities for advancement, reputation for excellence and the wide selection of outdoor pursuits available in the areas will assist in staff retention.

Comment: Potential for staff to work rotational shifts to reduce the size of the staff village.

It is envisaged that the majority of staff will reside at the site and will not have a residence elsewhere. Due to the nature of the tourism industry, there is not the scope to utilise rotational staffing and the Proponent is unaware of a precedent for this in hospitality.



Employment is on a shift basis over a 5/6 day week, with management staff working an 11 day fortnight. In some cases, rostered days off will be carried forward to allow 4 days off to enable time away from the Island. Staff retention in hospitality requires a sense of belonging and community which would come from having a permanent home amongst their coworkers.

Rotational shifts are common in industries such as mining where staff work on a "X weeks on / X weeks off" basis. This situation is quite different as staff are generally highly paid and have alternative residences. Full time tourism staff would earn an average wage of around \$35,000 per annum.

The staff village has been designed to accommodate the necessary staff numbers to efficiently operate the Lodge - there is not any redundancy to reduce its size.

4.5 Climate change impacts

Comment: Implications of climate change such as increased storm events on the site.

The Southern Ocean Lodge buildings will be built to withstand the extreme climate conditions on the south coast including significant storm events due to the location. Additional risks or hazards resulting from climate change such as storm surges or sea level rise are not expected to impact on the development given that the site is located 30 metres above sea level. Other possible hazards such as drought or increased bushfire risk will be mitigated by decreasing water usage (possibly in extreme circumstances occupancy rates would be reduced or the use of pool and spas would be restricted) and bushfire risk will continue to be mitigated by the Bushfire Management Plan.

4.6 Heritage

Comment: Address the potential loss of heritage value on "Tandanya Natural Area".

The subject land forms a small portion (100ha) of the "Tandanya Natural Area" (3100 ha) listed on the Register of the National Estate (the development site of one hectare is less than 0.05% of the listed area). The Tandanya Natural Area comprises native vegetation, linking two National Estate listed locations, Flinders Chase National Park to the west and Kelly Hill Conservation Park to the east. It is considered important as a wildlife corridor and approximately 180 plant species have been recorded within the area, including ten species or subspecies that are endemic to Kangaroo Island. Five species that are considered rare on a National basis occur in the Tandanya Natural Area, however these were not identified as occurring on site during the vegetation survey.

Listing of the area on the Register of the National Estate is not a land management mechanism. The way in which landholders manage their national estate properties is not directly affected by listing. Owners of registered places are not required to alter the way in which they manage, maintain, or dispose of, their property. The Commonwealth Government is the only body whose actions are constrained as a result of listings in the Register of the National Estate.

As the development area is less than 0.05% of the Tandanya Natural Area it is not expected that proposed development will have any long term impact on the heritage value of the area.



The establishment of a heritage agreement on the remaining 98ha of the subject land will add value to the heritage listing in ensuring preservation of this area for the long term.

4.6.1 Aboriginal representatives

Comment: Recommend contact with local Aboriginal representatives prior to construction.

A search was undertaken of Aboriginal heritage places database and no sites of significance were identified. The Proponent has included measures for dealing with discovery of Aboriginal artefacts in the Environmental Management Plan and will contact appropriate representatives prior to construction commencing.

4.7 Waste

Comment: Conflicting statements in the PER about the use of a productive garden.

The productive garden was originally part of the proposed development but was removed. The reference to the productive garden on Page 122 should have been removed.

4.8 Decommissioning

Comment: Address guideline 5.3.6 "Describe strategies to return the site to its predevelopment state should the project fail." Will the disturbed area be revegetated if the development is decommissioned.

The economic viability of the project has been assessed as part of the PER (Appendix L) and indicates a positive long term future for the proposed development once operational. It should be noted however that failure of the development as proposed would not necessarily lead to decommissioning of the site, rather a change of ownership or use (within constraints of any existing development approvals) may result.

Given the nature of the development and its long term viability, Baillie Lodges cannot confirm details about site decommissioning at this point in the project life cycle. However, the proponent agrees that an appropriate strategy for the decommissioning of the site would be to return the site to its pre-development state.



5. Conclusion

This report summarises the submissions received from government agencies and the public on the Public Environmental Report for the proposed Southern Ocean Lodge. The Proponent has responded to both the requirements of the Guidelines and the issues raised in the submissions where appropriate in the PER or this Response Document. A number of key issues raised in the consultation on the Issues Paper and outlined in the Guidelines were raised in the submissions and are further clarified herein.

Additional research has been undertaken and amendments have been made to the proposed project as a result of the issues raised by these processes. The Proponent has made changes where appropriate to ensure the main attraction for guests, being the environment, is protected. The amendments include:

- Increasing the water supply for fire fighting from 200,000 litres to 240,000 litres and increasing the number of butterfly sprinklers from 97 to 207.
- Increasing the buffer to the Osprey nest from 250 metres to 500 metres during breeding season (June to October).

The PER and Response Document consider the many benefits of the proposal against the potential impacts and conclude that the careful management proposed by the Proponent and compromise between successful development and environmental objectives can be met by the proposed development. The project should be considered on merit for approval.

Appendix A

List of respondents



List of respondents

The following is a list of Government, Local Government, Member of Parliament and public respondents who commented on the Southern Ocean Lodge PER document.

Submission No.	Name on Submission	Suburb	Comment
Government	Submissions	1	
G1	 Environment and Conservation Portfolio: Department for Environment and Heritage Department of Water, Land and Biodiversity Conservation Environment Protection Authority 	Adelaide	Agency Submission
	 ZeroWaste SA Peter Torr, Environment and Conservation Major Projects Coordinator 		
G2	Department of Health – Public Health – Dr Kevin Buckett, Director	Adelaide	Agency Submission
G3	Department for Transport, Energy and Infrastructure (DTEI) – Infrastructure Division – Robert Jenkins, Project Director	Walkerville	Agency Submission
G4	Department for Aboriginal Affairs and Reconciliation – Aboriginal Heritage Branch – Beverly Nicks, Senior Project Manager	Adelaide	Agency Submission
G5	South Australian Tourism Commission, WT (Bill) Spurr, Chief Executive	Adelaide	Agency Submission
G6	SA Country Fire Service – Development Assessment Unit (Bushfire Protection) – Brian Menadue, Senior Development Assessment Officer	Mt Barker	Agency Submission
G7	Department for Families and Communities – Social Inclusion, Strategy & Research – Alan O'Connor, Senior Policy Officer	Adelaide	Agency Submission
G8	Department of Trade and Economic Development – Economic Analysis and Policy – Mick O'Neill, Director	Adelaide	Agency Submission
G9	Native Vegetation Council – John Roger, Presiding Member	Adelaide	Agency Submission
G10	Planning SA Assessment	Adelaide	Agency Submission
*G11	Department for Transport, Energy and Infrastructure (DTEI) – Traffic and Access Standards – Manager	Walkerville	Agency Submission
Local Govern	nment Submissions		
LG1	Kangaroo Island Council – Nick Brown, CEO	Kingscote	Council Submission
*LG2	Kangaroo Island Council – Kangaroo Island District Bushfire Prevention Committee – Peter Davis, Chairperson	Kingscote	Council Submission
Member of P	arliament Submissions		
MP1	Finniss Electorate Office - Michael Pengilly MP, Member for Finniss, Shadow Parliamentary Secretary for DTEI and Regional Development	Victor Harbor	Individual Submission



Submission No.	Name on Submission	Suburb	Comment
Public Submi	issions	1	
P1	J Grinter	Greenbushes (WA)	Proforma Submission A
P2	Pontifex Farming Trust	Kadina	Proforma Submission A
P3	W Ravenscroft	Sandhill	Proforma Submission A
P4	R Jackson	American River, KI	Proforma Submission A
P5	J Barnett	Launceston (TAS)	Proforma Submission A
P6	R Barnett	Launceston (TAS)	Proforma Submission A
P7	P Jackson	Malvern	Proforma Submission A
P8	D & M Tiller	Mallala	Proforma Submission A
P9	J Simpson	Kingscote	Proforma Submission A
P10	P Hupfeld	Kingscote	Proforma Submission A
P11	A Morrison	Kingscote	Proforma Submission A
P12	J & W Wallace		Proforma Submission A
P13	S Carey	Kingscote	Proforma Submission A
P14	E Sheppard	Kingscote	Proforma Submission A
P15	S Murton		Proforma Submission A
P16	A Blakney	Taroona (TAS)	Proforma Submission A
P17	H Kench	Taroona (TAS)	Proforma Submission A
P18	D West	Kingscote	Proforma Submission A
P19	J Carey	Penneshaw	Proforma Submission A
P20	M Wolpert		Proforma Submission A
P21	J Mackintosh	Dudley Peninsula, KI	Proforma Submission A
P22	R Seamark	Aldinga Beach	Proforma Submission A
P23	J Bloemendal	Kingscote	Proforma Submission A
P24	JP Bloemendal	Kingscote	Proforma Submission A
P25	C West	Kingscote	Proforma Submission A
P26	M Elliott & T Barnes	KI	Proforma Submission A
P27	N Pike	Penneshaw	Proforma Submission A
P28	R & J Wilson	Kingscote	Proforma Submission A
P29	S Clarke	Karatta, KI	Proforma Submission A
P30	V Clarke	Karatta, KI	Proforma Submission A
P31	D & M Wilson	Kingscote	Proforma Submission A
P32	K Grinter	American River, KI	Proforma Submission A
P33	N Grootemboer	Kingscote	Proforma Submission A
P34	R Swan	American River, KI	Proforma Submission A
P35	E Giles	Kingscote	Proforma Submission A
P36	S McGowan		Proforma Submission A
P37	L Carter		Proforma Submission A
P38	B Overton		Proforma Submission A
P39	Illegible		Proforma Submission A
P40	D Clothier		Proforma Submission A
P41	J Giles	Kingscote	Proforma Submission A



Submission No.	Name on Submission	Suburb	Comment
P42	M Leane		Proforma Submission A
P43	D & S Pattingale		Proforma Submission A
P44	C Whale	Kingscote	Proforma Submission A
P45	Illegible	Kingscote	Proforma Submission A
P46	Kavan		Proforma Submission A
P47	S Holmes	Kingscote	Proforma Submission A
P48	L Montanjees		Proforma Submission A
P49	P Goodwin	Penneshaw	Proforma Submission A
P50	L & P Dennis	Kingscote	Proforma Submission A
P51	R & A Clark		Proforma Submission A
P52	R Hansberry	Kingscote	Proforma Submission A
P53	A Locks	American River, KI	Proforma Submission A
P54	S & S Lovering	KI	Proforma Submission A
P55	K Cuddihy	Kingscote	Proforma Submission A
P56	P & R Handley	Kingscote	Proforma Submission A
P57	H Lane	American River, KI	Proforma Submission A
P58	S Thompson		Proforma Submission A
P59	T Linnet & J Drinkwater		Proforma Submission A
P60	T Trice	American River, KI	Proforma Submission A
P61	M Perkins		Proforma Submission A
P62	D Stubbs-Mills	Penneshaw	Proforma Submission A
P63	I Gilfillan		Proforma Submission A
P64	K & R Florance		Proforma Submission A
P65	Illegible		Proforma Submission A
P66	J Ayliffe		Proforma Submission A
P67	J Clapson	Kingscote	Proforma Submission A
P68	M Heard		Proforma Submission A
P69	Illegible		Proforma Submission A
P70	Illegible		Proforma Submission A
P71	Illegible		Proforma Submission A
P72	Illegible		Proforma Submission A
P73	Illegible		Proforma Submission A
P74	G Rowsell		Proforma Submission A
P75	S Neave		Proforma Submission A
P76	W & J Buick		Proforma Submission A
P77	A Stephenson		Proforma Submission A
P78	T & F Gilbert		Proforma Submission A
P79	V Bates	Kingscote	Proforma Submission A
P80	L Dunn	Kingscote	Proforma Submission A
P81	R & P Murten		Proforma Submission A
P82	J Higgs		Proforma Submission A
P83	B & J Cleland	Penneshaw	Proforma Submission A



Submission No.	Name on Submission	Suburb	Comment
P84	A & J West	Kingscote	Proforma Submission A
P85	M & E Hurst	Kingscote	Proforma Submission A
P86	L Willson	KI	Proforma Submission A
P87	P Rinnane	Kingscote	Proforma Submission A
P88	K Wiadrowski	KI	Proforma Submission A
P89	Illegible	Kingscote	Proforma Submission A
P90	C Colenso	Kingscote	Proforma Submission A
P91	J Benney		Proforma Submission A
P92	Illegible		Proforma Submission A
P93	Illegible		Proforma Submission A
P94	K Hemmat		Proforma Submission A
P95	D Stanton	Stokes Bay, KI	Proforma Submission A
P96	Illegible		Proforma Submission A
P97	J Wallace	Stokes Bay, KI	Proforma Submission A
P98	N Stephenson	Kingscote	Proforma Submission A
P99	Illegible		Proforma Submission A
P100	M Amor	Brownlow, KI	Proforma Submission A
P101	B Birks	Kingscote	Proforma Submission A
P102	R & B Spark	Penneshaw	Proforma Submission A
P103	D & J Havelberg	Cygnet River, KI	Proforma Submission A
P104	R & B Hilder	Penneshaw	Proforma Submission A
P105	D Smith	Kingscote	Proforma Submission A
P106	D Langdon	KI	Proforma Submission A
P107	D Correll		Proforma Submission A
P108	C Henrich	Baudin Beach, KI	Proforma Submission A
P109	S Gillespie	Kingscote	Proforma Submission A
P110	M Morrison	Hove	Proforma Submission A
P111	D Arnold	Penneshaw	Proforma Submission A
P112	M & M Tremaine		Proforma Submission A
P113	M Lucas		Proforma Submission A
P114	E Barrios	Penneshaw	Proforma Submission A
P115	Illegible		Proforma Submission A
P116	J Woolley	KI	Proforma Submission A
P117	Baxter		Proforma Submission A
P118	G & J Budarek	Kingscote	Proforma Submission A
P119	The Conservation Council of South Australia Inc (CCSA)	Adelaide	Individual Submission
P120	M & G Dreimanis	Magill	Individual Submission
P121	T Bartram	American River, KI	Individual Submission
P122	I & P Heath	Kingscote	Proforma Submission A + Individual Comments
P123	C & B Maxwell	Kingscote	Individual Submission
P124	P Masters and R Southgate		Individual Submission



Submission No.	Name on Submission	Suburb	Comment
P125	W Haylock	Kingscote	Individual Submission
P126	K Buttery	KI	Individual Submission
P127	S Antill	Turramurra, NSW	Individual Submission
P128	B & J Huxtable	Penneshaw	Proforma Submission A
P129	M Fowler		Proforma Submission A + Individual Comments
P130	B & T Parsons	Kingscote	Individual Submission
P131	J Antill	Turramurra, NSW	Individual Submission
P132	H Richards	Kingscote	Proforma Submission C
P133	R Mussared		Proforma Submission A + Proforma Submission C
P134	A Schofield	Kingscote	Proforma Submission A + Proforma Submission C
P135	V & R Borgmeyer		Proforma Submission A
P136	D Dowie	Kingscote	Proforma Submission C
P137	B & D Overton	Kingscote	Individual Submission
P138	E Shearman	Penneshaw	Individual Submission
P139	S & C McGowen	Kingscote	Individual Submission
P140	B Golder	Kingscote	Individual Submission
P141	G Wilby	Kingscote	Individual Submission
P142	P Jackson	Malvern	Individual Submission
P143	Dr T Wootten-Leeuwenburg	Kingscote	Proforma Submission B
P144	J Marshall	Kingscote	Proforma Submission B
P145	C Stephenson	Nairne	Proforma Submission B
P146	S Hourez	Kingscote	Individual Submission
P147	E Shearman	Penneshaw	Individual Submission
P148	M Latz		Individual Submission
P149	C & R Beckwith	Western KI	Individual Submission
P150	R Cohen	Kingscote	Proforma Submission A + Individual Comments
P151	C Cohen	Kingscote	Proforma Submission A + Individual Comments
P152	C Baxter – South Coast Action Group	KI	Proforma Submission C + Individual comments
P153	F & H Vickery	Kingscote	Proforma Submission C + Individual comments
P154	S Wright	American River, KI	Individual Submission
P155	M Florance	KI	Proforma Submission A
P156	M Willson	West Lakes	Proforma Submission A + Individual Comments
P157	M Warren	Penneshaw	Individual Submission
P158	D Clarke	Penneshaw	Individual Submission
P159	J Wheaton	Kingscote	Individual Submission
P160	P moon	Kingscote	Individual Submission
P161	P Leeuwenburg	Kingscote	Proforma Submission B



Submission No.	Name on Submission	Suburb	Comment
P162	M Leeuwenburg	Glengowrie	Proforma Submission B
P163	T Moorey	Kingscote	Proforma Submission A + Individual Comments
P164	N Findlay	Bedford Park	Individual Submission
P165	D & M Patterson	Kingscote	Proforma Submission B
P166	E Neave	KI	Proforma Submission A + Individual Comments
P167	K Stove	Penneshaw	Individual Submission
P168	S Grovermann	Sefton Park	Proforma Submission B
P169	K Ellers	Clarence Park	Proforma Submission A
P170	T & M Dennis	Encounter Bay	Proforma Submission A + Individual Comments
P171	P Park		Proforma Submission A + Individual Comments
P172	B Stokes	Kingscote	Individual Submission
P173	C Williams	Kingscote	Individual Submission
P174	D Welford	Kingscote	Individual Submission
P175	M Thorpe	Broadview	Proforma Submission B
P176	P Doumouras	Hope Valley	Proforma Submission B
P177	D McDonald	Penneshaw	Individual Submission
P178	M Newton	Kingscote	Individual Submission
P179	R & A Beckwith	Kingscote	Individual Submission
P180	T Deed		Individual Submission
P181	F Hall		Proforma Submission B
P182	G & M Dreimanis	Magill	Individual Submission
P183	J Bloemendal	Kingscote	Individual Submission
P184	Natural History Society of South Australia – Graham Churchett, Fellow	Athelstone	Individual Submission
P185	T Wootton	Gosse, KI	Individual Submission
P186	L Harris	Bay of Shoals, KI	Individual Submission
P187	T & M Geyer	Kingscote	Individual Submission
P188	M Elliott & T Baines		Proforma Submission A
Late Submiss	sions (received after May 17 2006)		
L1	P Harvey	Kingscote	Individual Submission
L2	W Gripton	Brownlow, KI	Individual Submission
L3	W Richards	Kingscote	Proforma Submission C
L4	M Mooney	Alice Springs (NT)	Proforma Submission A
L5	R Colman	KI	Proforma Submission A
L6	R Dare	Port Augusta	Proforma Submission A + Individual Comments
L7	A McClaren	KI	Proforma Submission A
L8	G & D Morris	KI	Proforma Submission A
L9	C Duncan	Kingscote	Proforma Submission A
L10	P Boehm	Kingscote	Proforma Submission A



Submission No.	Name on Submission	Suburb	Comment
L11	A Boss		Proforma Submission A
L12	R Wandel	Kingscote	Proforma Submission A
L13	K Brinkley	Emu Bay, KI	Proforma Submission A
L14	P Richards & R Tanti	Penneshaw	Proforma Submission A
L15	C Brinkley	Emu Bay, KI	Proforma Submission A
L16	C Smith	Kingscote	Proforma Submission A
L17	H Barrett	Kingscote	Proforma Submission A
L18	A Waldeck	Kingscote	Proforma Submission A
L19	Illegible		Proforma Submission A
L20	D George		Proforma Submission A
L21	N Jenkins	Kingscote	Proforma Submission A

^{*} Submissions in italics were also received after the due date of May 17 2006.

Appendix B

Summary of Government submissions



Summary of Government submissions

The following is a summary of the Government, Local Government and Member of Parliament submissions on the Southern Ocean Lodge PER document.

Codes: PER = Public Environment Report, NSG = Not in Scope of Guidelines

Туре	Comment	Summary	Reference in PER	Reference in Response Document
G1 En	vironment an	d Conservation Portfolio		
	DEPARTME	NT FOR ENVIRONMENT AND HERITAGE		
	а	The PER does not include an assessment of the impacts of the road construction. To meet requirements for construction, delivery, refueling and emergency significant upgrading of the existing track will be required and the full impacts including vegetation clearance, management of <i>Phytophora</i> and erosion should be included in the PER.	22	3.6.2, 3.2.1, 3.2.3
	b	The site description suggests the Proponent also owns the adjoining cliffs and beach which are located on Crown land. Pedestrian access over Crown land and management of its impacts must be agreed with the Department for Environment and Heritage prior to development approval. The beach should remain unrestricted for public access.	4.9, 6.4.2	3.7
	С	It is noted that the encumbrances on future development of two neighboring properties applies only to those parts of the properties with existing development restrictions for reason of being within the Coastal Landscape Zone.	3.3	3.7
	d	Site selection provides limited information on evaluating alternative options for achieving the same objectives at less environmental cost, and in particular consideration of alternative locations that have less direct land use conflicts on all boundaries.	3.1	3.1
	е	The instability of the natural scald of this part of the site is part of a natural cycle. The inherent instability of the natural scald presents significant risks that the scale, nature and location of the disturbance by the development will disrupt the ecological function of the sensitive dune system.	6.3.2	3.2.3
	f	Assessment of native vegetation clearance does not include the development of the access road. Given the condition of the track at the time of lodgement of the application, the respondent questions the statement that "only minor pruning of vegetation along this track will be required".	6.3.2	3.2.1
	g	The PER discusses the vegetation clearance by the development as a percentage of the total property but inadequately assesses the significance of the development in terms of its impact on the ecological connection it provides between Flinders Chase National Park and Kelly Hill Conservation Park and the importance of this area within the Cape Borda to Barossa NatureLinks corridor. The development will contribute to incremental fragmentation and degradation of the remaining native vegetation in this important area. Maintaining and improving the ecological integrity of the area will become increasingly critical in the face of the pressures likely to be imposed on natural island systems in the face of climate change.	6.3.2	3.3
	h	The comparative clearance requirements of two significantly different forms of development is not understood.	6.3.2	



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	i	The pruning of native vegetation to 300 mm within 20 metres of buildings cannot be considered minor pruning as indicated. Ongoing reduction to this height will remove the canopy and mid-storey vegetation layers and is considered clearance under the Native Vegetation Act. Maintaining vegetation at this height is likely to result in the local loss of native species and will change the structure and ecological function of this area, including increased opportunities for weed invasion.	6.3.2	3.2.2
	j	The conclusion that species of conservation significance can be overlooked on the basis that they are adequately represented on adjacent lands shows a lack of understanding of the relevance of habitat areas for species abundance and survival. All populations of species of environmental significance should be protected.	6.3.2	3.3
	k	How were vegetation clearance figures calculated and not clear if it includes helipad clearance, access tracks and walking tracks.	6.3.2	3.2.1
	I	The conclusion that Ironstone Mulla Mulla have not been observed during the field surveys and are therefore unlikely to be present fails to recognize that the species requires disturbance, such as fire, to promote regeneration. It is likely that the species could occur when the requisite disturbance regime is present.	6.3.2	3.2.5
	m	The PER indicates that the proposal is unlikely to have an impact on the three species listed as vulnerable under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> being the Twining Hand-flower, Kangaroo Island Spider Orchid and Ironstone Mulla Mulla. The PER should consider the likelihood of these species occurring under specific conditions and the impact of the development on the probability that regeneration events will occur.	6.3.2	3.2.5
	n	A buffer zone of 250m from the Osprey next (located over 1 kilometre from the development) is not considered to be a conservative distance. Research on the Island raises concerns about Ospreys on the North Coast where nesting has declined in response to increased development. A precautionary response to the management of coastal raptors requires larger buffers around nest sites and in this instance any human activity between the nest site and the development should be discouraged, preferably by strict measures such as physical barriers.	6.4	3.2.6
	0	The conclusion that there is a low likelihood of White-Bellied Sea-Eagles and Peregrine Falcons occurring on the site as no nesting sites have been observed is not supported. The species are regularly observed feeding in the immediate cliff area.	6.4	3.2.6
	р	In the report Hooded Plovers (Thinornis rubricollis) are said to be stable or slightly increasing in number on Kangaroo Island. In contrast, a recent publication (Dennis & Masters 2006) indicates that over the past 20 years the population has been declining and this is supported by DEH annual survey data for this species. Increased activity in the area is likely to have negative impacts on this species.	6.4.2.2	3.2.6
		There is a known nesting site on the beach to the east of the proposed development, with guest suites within 100 m of this site. Although the PER seeks to manage access to the beach it will be easy for * people to access this part of the beach. That likelihood combined with the near vicinity of the guest suites, could result in the Hooded Plover pair abandoning this nesting site altogether. The PER should propose appropriate measures to prevent this from occurring.		



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	r	The Kangaroo Island Dunnart (Sminthiopsis aitkeni) and the Southern Brown Bandicoot (Isoodon obesulus obesulus) are listed as endangered under the Environment Protection and Biodiversity Conservation Act 1999. The PER indicates that these species were not observed on the site and that there is unlikely to be a significant impact as a result of the proposal. The environmental management plan should include ongoing monitoring and reporting of any sightings of fauna on the site and identify actions put in place to manage impacts from activities associated with the development.	23.4	3.2.7
	S	The existing disturbance on the site in the form of small scalds is part of the natural cycle of coastal erosion in this dune/limestone landscape. The poorly aggregated sand and limestone substrate on this site is highly prone to erosion. Even minor introduced disturbance is likely to lead to elevated erosion that may result in widespread vegetation loss in this fragile coastal ecosystem. The likely erosion impact to be introduced by the development and its ongoing operation is not addressed in any detail by the PER. As people movement could have a significant impact over time, the detail of the number, location, and type of access paths to the coast would have assisted in assessing the potential impact. Protecting the particularly sensitive (due to their exposure) dune ridges between the cliff top and the development site requires careful consideration	9.4, 4.9, 23.5	3.2.3
	t	A map detailing the prevailing landforms in relation to the development site is required before an assessment of impact can be made.	9.2	4.1
	u	It is not clear whether or not the location of the boundary of the existing coastal reserve would allow for appropriate public access along the cliff top	4.9	3.7
	V	Water erosion is also a concern post construction when approx. 4000 sq metres of roof area will result in a serious erosion risk during high rainfall periods once water storages are at capacity.	10.1, 10.3, 21.6, 21.2	4.1
	W	No reference has been made to strategies and management actions that will be put in place to manage impacts following fire events on the site. Temporary loss of vegetation cover following fires combined with the presence of structures, staff and guest activity, have the potential to result in significant soil erosion of the site's coastal sandy soils.		3.4
	х	The PER does not appear to take cognisance of seasonal variations in weather conditions and its relevance for timing of construction activities	5	
	У	The PER has not responded to guideline 5.2.23 in relation to evaluating the need for fire management to maintain biodiversity. The Fire Management Plan should consider fire as part of the long-term ecological management of the site if the development is to be ecologically sustainable.		3.4.1
	Z	The discussions of consistency with the ESD principles of inter-generational equity and the precautionary principle in the PER do not address issues of on-going compliance with the impact mitigation measures proposed, including in the event of a change of ownership. The probability of non-compliance with aspects of the Environmental Management Plan should be an important consideration in the assessment of the proposal based on the risks it presents.	15.1	4.3



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	aa	The hydro-geological discussion on p. 80 of the PER refers to seasonal perched water tables that occur in duplex sand over clay soils, which do not actually occur on the development site. The Pleistocene calcarenite and Holocene dune sands at the Southern Ocean Lodge site are both permeable, porous materials. The limestone aquifer holds water in interstitial pore spaces rather than fractures as suggested	9.3	4.1
	ab	The disused bore referred to in the third paragraph is presumably the deep bore at Kangaroo Island Wilderness Resort. No evidence is provided in the PER as to the available supply of water and flow rate from this bore. This remains uncertain, as does the fire fighting reserve volume that it is proposed that this bore will supply (Appendix E).	9.3	4.1
	ac	Andrew Lothian's recent report, Coastal Viewscapes of South Australia, has mapped the scenic values of South Australia's coast. DEH concluded from that report that the site of the proposed development is of high scenic value and the proposed development will be detrimental to that value.	12.1, 12.2	4.2
	ad	In regards to visibility of the site from land, further to the viewpoints identified in the PER (Section 12), DEH has observed that the site is visible from the walking trail between Hanson Bay and Kelly Hill caves at a point approximately 2 kilometres from the coast.		4.2
	ae	While the EMP includes proposals on data collection through a checklist and form, it is not explained how, to whom and for what purpose this data is to be reported, or how it will be used to ensure compliance with the objectives of the EMP.	20.4.2, 22.2, 24	4.3
	af	The proposed wastewater reuse project application (pi01: 15.2) should include testing of wastewater before discharge, or at least regular testing of discharged water.		Noted
	ag	The Biodiversity Conservation project application (P102:15.2) should also include that "there will be no loss of threatened faunal species"	6.4.2.2	Noted
	ah	The Weed Management project application (P102:15.2) should include the control of existing infestations, not just stopping their spread.		Noted
	ai	Guideline 5.2.47 requires the PER to describe the implications of climate change with respect to the proposal and any proposed adaptation and reduction measures in relation to greenhouse gas emissions. The PER addresses some positive building design aspects and solar energy, but does not mention any adaptation issues such as increased storm events or link climate change to any risks/hazards that may need additional management, such as impacts from more extreme weather events on the development site itself or on associated natural areas.	9.4	4.5
	aj	The PER has not responded to Guideline 5.3.6, which requires description of strategies to return the site to its predevelopment state should the project not succeed.		4.7
	ak	The frequency of fires in the vicinity of the site (p.107) and consequently, the risk to the development, is underestimated due to the omission of fires that occurred in 1954, 1958, and 1970. All of these were large fires that burnt either the proposed development site or within 5 km of it.		Noted



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	al	The overall fuel hazard for the vegetation that occurs on the site of the development has been assessed as extreme in the northern section, very high through the centre section and high in the section immediately adjacent to the coast (KI Natural Resource Management Board and DEH fuel assessment data). The proposed development will be exposed to a significant impact from bushfires unless the risks are managed. The risk of fire ignition on the site has also not been considered.	17.6, 17.4	3.4
		The highest risk to the buildings will be from a bushfire coming from north-easterly to westerly directions. Winds from these directions during the bushfire season are commonly associated with high temperatures, low humidity and high wind speeds. This exposes the proposed development to a significant bushfire risk, as the north-eastern, northern and western sides of the buildings are adjacent to very high fuel hazard. The relatively lower fuel hazard to the south of the buildings will not reduce this high level of risk.		
		The design of the buildings exposes the maximum area of the buildings to the maximum bushfire risk due to their east-west orientation and the consequent exposure of the northern and western aspects to very high fuel hazard and the most extreme fire weather conditions. The ridge to the west of the buildings is unlikely to significantly reduce fire intensity or forward rate of spread in high, very high or extreme fire danger weather conditions.		
	am	A comprehensive Fire Management Plan should be prepared to identify fire-associated risks, assess the level of risk, and develop the management strategies and actions necessary to mitigate and manage these risks.	21.9, 17.6, 22.10, 17.7	3.4
	an	The PER fails to mention in the section on natural heritage places (p.78) that the Southern Ocean Lodge site falls within the 'Tandanya Natural Area7 and is, therefore, on the Register of the National Estate (Place ID 19021). The PER has not addressed the issue of potential loss of heritage value as a result of this development.		4.6
	ao	The style of this development significantly impacts on the social aspect of wilderness, which includes aspects such as self-reliance, lack of perceived developments, remoteness, and high landscape and aesthetic values that result from absence of infrastructure. The development will contribute to the fragmentation of an almost intact coastal zone of approximately 40km stretching from Cape du Couedic to Vivonne Bay. The only existing development along this stretch of coast is at the Hanson Bay Cottages, and if it was possible to locate the proposed development in the same location it would present an opportunity for meeting the objectives of the proposal at a significantly reduced environmental cost.	6.3.2.6	3.3, 3.1
	ар	The PER does not consider the importance of the site in relation to the target in the South Australia's Strategic Plan of five well-established biodiversity corridors linking public and private lands across the State by 2010 to promote a landscape scale approach to conservation. In addition to the significant contribution the coastal habitat around Hanson Bay makes as an ecological linkage between Flinders Chase National Park and Kelly Hill Caves Conservation Park, the Kangaroo Island's south coast provides an almost intact ecological corridor between Cape Borda and the Dudley Peninsula, which will contribute significantly to the successful implementation of the Cape Borda to Barossa NatureLinks corridor, one the five corridors identified to achieve the Strategic Plan target.		3.3
	aq	An assessment against the Development Plan should not result in a development being 'approved on merit/ just because it is not at serious variance with the provisions of the development Plan. An assessment against relevant provisions is still required.	7.3	3.8



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	ar	DEH notes that the proposed development is at odds with the various Coastal Landscape Zone provisions relating to scenic values. Specifically Objective 1 and 2, and Principles 1, 3, 5, 9, 10, 12, 13 and 15. The proposal is also at odds with Principles 6 and 8.	7.3, Appendix J	3.8
	as	It is also likely that the staff accommodation component falls within the list of non-complying development (as a Multiple Dwelling or Residential Flat Building) in Principle 16.		3.8
	at	The PER does not state whether the coastal reserve is to be increased to meet the requirements of Principle 227 (ie 50 metres from the cliff top). DEH notes that land division falls within the major development declaration.	Appendix J	3.7, 3.8
	au	The PER also makes various references to the development being setback 100 metres from mean high water mark. That is of particular relevance to Principle 211 (relating to the required setback for effluent disposal systems). However, the 'mean high water line' shown on Plan 392-M-10 and the mean high water mark plotted on the Section on Plan 392-M-7 appear to be more seaward than DEH would expect. An accurate determination of that mark along with the location of the coastal reserve boundary is required.		3.7, 3.8
	DEPARTME	NT OF WATER, LAND AND BIODIVERSITY CONSERVATION		
	а	The Animal and Plant Control Group indicated that there was no evidence that there were any animal and plant control issues associated with the development.		Noted
	b	They would however suggest that the developers need to consult with the NRM Board over arrangements to minimise the risk of spreading weeds during works. The development may cause other environmental impacts that need to be considered by other groups.	6.5.3, 21.12, 22.13	Noted
	ENVIRONMENT PROTECTION AUTHORITY			
	а	Marine issues, in particular pollution to marine waters are considered to be minimal provided the facility is constructed and operated in accordance with the details provided.		Noted
	b	The major threat to marine waters and ecosystems is contaminated runoff or wastewater flowing down to the beach and sea, particularly during the construction phase.	22.7, 10.3, 23.9, 10.2.2.1	4.1
	С	The level of wastewater generated and consequent irrigation rates should be closely monitored and if greater than 8,500L/day then irrigation area and rates modified to suit.		Noted
	d	Wastes during construction and operation are to be adequately contained to ensure they don't escape the site. Waste disposal points (vermin proof) should also be provided on pathways towards the beach so that people using the lodge have somewhere to put rubbish when doing their beach trips.	22.5, 23.7	Noted
	е	Page 83 states that the treatment of rainwater supplies in the storage tanks may be done using chemical disinfection - The applicant should discuss in the response document of any impacts on the local environment from the overflow of rainwater tanks in the event of significant rainfall event.		4.1
	f	In order to control erosion from the site during the construction phase, it is recommended that clearing of vegetation is minimised and subsequent revegetation of impacted areas undertaken as soon as possible following construction	21.6	3.2.1, 3.2.3



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	ZEROWAST	E SA		
	а	Zero Waste SA has no comment on the PER.		Noted
G2 De	partment of H	lealth		
	а	The public and environmental health aspects (eg, water management, emergency response and hazard management) have been reviewed and generally appear to have been appropriately addressed.		Noted
	b	The intention to ensure that the potable water supply (rainwater) meets NH&MRC Australian Drinking Water Guidelines is acknowledged and welcomed.	10.1	
	С	It is unclear from the PER whether the fire fighting water supply will be treated or untreated bore water only or a mixture of bore water and rain water as required and the quantity of water required for fire fighting. It is recommended that these issues be clarified and that it be confirmed that the rainwater treatment plant will be able to treat bore water to potable standards should it be stored in the rainwater tank. If this is not the case, alternate arrangements will be required.	10.1	4.1
	d	The proponent's consultant has liaised with the Wastewater Management Unit in the Environmental Health Service on this issue and there are no impediments at this conceptual stage.		Noted
	е	Although the proposal to dispose of the wastewater effluent by subsurface irrigation is satisfactory, should surface irrigation be desired, then the effluent must be disinfected to meet the requirements of the South Australian Reclaimed Water Guidelines (1999).	10.2.2	Noted
	f	The Department reminds the Proponent that a disposal path for the spa water must be designed to comply with the requirements of the relevant authority under the Public and Environmental Health Act 1987 and the Proponent must obtain a separate approval from the Department of Health (Wastewater Management Unit) for the other elements of the onsite collection, treatment and disposal of wastewater.	10.2.2	Noted
G3 De	partment of T	ransport, Energy and Infrastructure – Infrastructure Division		
	а	SOL provides creative solutions to developments in remote locations.		Noted
	b	The creative design to achieve passive solar climate control and active water recycling both help to achieve a sustainable development.		Noted
	С	The use of diesel generators to provide power is the only viable solution to power at the western end of Kl. Wind could have provided a renewable energy source but research has shown that it cannot provide reliable supplies at all times; a requirement for a development of this type. The availability of Bio diesel in SA once the planned refineries are completed will provide the opportunity to use a renewable fuel in the future.	4.6.3	3.6
	d	The Hanson Bay access road is not seen as a major issue as a high proportion of the target clients are expected to be collected from the airport in SOL vehicles. Experienced drivers will ensure safer passage over the unsealed roads minimising the risks of increased road trauma from increasing the number of inexperienced drivers on the KI roads.	4.7, 4.8	



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	е	Infrastructure Division thus supports the development of the Southern Ocean Lodge and can see no infrastructure impediment to it proceeding.		Noted
G4 De	partment for A	Aboriginal Affairs and Reconciliation		
	а	Confirm the advice that the Central Archive, which includes the Register of Aboriginal Sites and Objects (the Register), administered by the Department for Aboriginal Affairs and Reconciliation (DAARE), currently has no entries for Aboriginal sites within the proposed works location.		Noted
	b	Remind the Proponent that the Register does not purport to be a comprehensive record of all Aboriginal sites, objects and remains in South Australia. Sites or objects may exist on the subject land even though the Register does not identify them. All Aboriginal sites and objects are protected under the Aboriginal Heritage Act 1988 (the Act), regardless of whether they are listed in the Register and it is an offence to damage, disturb or interfere with any Aboriginal site or damage any Aboriginal object (registered or not) without the authority of the Minister for Aboriginal Affairs and Reconciliation (the Minister). If the planned activity is likely to damage, disturb or interfere with a site or object, authorisation of the activity must be first obtained from the Minister under Section 23 of the Act. Section 20 of the Act requires that any Aboriginal sites, objects or remains, discovered on the land, be reported to the Minister. Penalties apply for failure to comply with the Act.	21.13	
	С	Commend the Proponent's awareness of Aboriginal heritage issues, as displayed in the PER, but note that the Report provides no evidence of an intention to consult with or involve Aboriginal people or to train construction staff in recognition of potential objects or remains. DAARE strongly recommends that the Proponent contact representatives of the Kaurna, Ngarrindjeri and Ramindjeri peoples before the project proceeds, to ensure respect for their heritage interests and well being. Contact details for these groups are provided.		4.6
G5 So	uth Australian	n Tourism Commission		
	а	The South Australian Tourism Commission (SATC) commends Baillie Lodges and Parsons Brinckerhoff on producing a comprehensive response to the issues identified within the Guidelines Paper. The PER demonstrates that all of the Issues Identified to date can be resolved through innovative design, management or technological solutions.		Noted
	b	The SATC have no other specific comments to make in relation to the PER other than to reinforce our position in relation to this development. The SATC believes Southern Ocean Lodge presents a rare combination of development attributes and is South Australia's best prospect for competitive product in nature-based tourism. Southern Ocean Lodge is a significant strategic and economic development in the context of the States tourism industry.		Noted
	С	Southern Ocean Lodge aligns directly with South Australia's strategic directions for tourism. In particular, the development is consistent with objectives and strategies contained in the:	2.5	
		South Australian Strategic Plan		
		■ South Australian Tourism Plan 2003 - 2008		
		South Australian Tourism Export Strategy		
		 Responsible Nature Based Tourism Strategy (A joint Department for Environment and Heritage/SATC Strategy). 		



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	d	New investment in tourism accommodation has been identified as one of four critical success factors that must be overcome if South Australia is to achieve its Strategic Plan target for tourism. The SATC is concerned that there is a risk that if this development cannot overcome essentially resolvable issues, this would send a message that could irreparably damage South Australia's tourism investment reputation.	2.2	
G6 SA	Country Fire	Service Development Assessment Unit (Bushfire Protection)		
	а	The South Australian, Country Fire Service, Development Assessment Unit (CFS, DAU) has been involved with the developers architect for the past 9 months including two site inspections with regard to bushfire protection, prevention and life safety matters relevant to the development. This ongoing consultation has resulted in a 'Bushfire Management Plan', which satisfies the planning processes. Continued negotiation will occur as the project progresses with discussion to resolve identified concerns through the bushfire engineering process and application of acceptable alternate solutions.	17	
	b	It should be noted the application of 'leading edge' passive bushfire protection for building design and contraction will be applied. Passive protection will be supported with active protection management of the adjoining landscape and contained within a 20 metre native vegetation exempt zone around the buildings.	17	
G7 De	partment for I	Families and Communities		
	а	As the construction is to take place on an area of the island that is largely uninhabited, its construction and operation is unlikely to negatively impact on the community.		Noted
	b	The impact on families and the community appears to be mainly positive ie the increase in employment both in the construction and ongoing operation of the Lodge and the flow on benefits to the local economy.		Noted
G8 De	partment of T	rade and Economic Development		
	а	The Department considers that the Proponents have comprehensively addressed the environmental, social and economic issues as detailed in the assessment Guidelines. The PER provides an appropriately balanced analysis of the likely costs and benefits that will result from the development.		Noted
	b	The Department has scrutinised the PER with particular regard to the proponent's justification for the project, the State's strategic context that supports this kind of tourism development, and the anticipated benefits that the project is expected to deliver for the region and South Australia.		Noted
	С	There has been considerable tourism investment interstate in response to international growth in this 'high end' sector. However, tourism development of this kind is generally unrepresented in South Australia's tourism portfolio, which has the effect of diminishing the competitiveness and profile of South Australia's tourism industry. Developments such as Southern Ocean Lodge will greatly assist in diversifying and raising the profile of South Australia's tourism product, which will help to boost the industry's longer term competitiveness.		Noted
	d	Suitable 'iconic' locations are not common in South Australia particularly where the tourism spend can be extended across a range of other sectors. Kangaroo Island has an advantage in maximising these benefits due to its favourable environmental attributes and the existing range of goods and services that are both necessary and complementary to enhancing the tourist experience.		Noted



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	е	By targeting a niche 'high end' market, the development is not likely to adversely affect other accommodation providers in the region. Conversely, the development of a world-class ecotourism facility will provide broader promotional coverage for the Island which is likely to draw a greater volume of visitors, thereby producing a net economic benefit.		Noted
	f	Developments of this kind can also have the effect of enhancing the branding and international exposure of local products. Kangaroo Island's reputable food industry could stand to benefit from the greater interstate and international recognition that will derive from increased visitation and tourism promotion, which could assist in export growth into key markets.		Noted
	g	The Department notes that the economic success of the development will rest on the maintenance of the environment at the site, as visitors have the clear expectation of experiencing an uncompromised natural setting. The proposed measures to protect remaining vegetation and to manage the environment (with appropriate regulatory support) should be given favourable consideration in terms of achieving a sustainable development outcome. The proposal represents an opportunity to utilise natural assets to yield wide and long lasting benefits without adversely impacting on the asset value itself.		Noted
	h	The Department of Trade and Economic Development supports the approval of this project on the basis of the sustained economic benefits it is likely to generate, and the project's alignment with the SA Tourism Plan 2003-2008 and the Responsible Nature-based Tourism Strategy 2005. The development will also assist with achieving the South Australian Strategic Plan target for tourism.		Noted
G9 Na	tive Vegetatio	on Council		
	а	As a result of amendments to the Native Vegetation Act in 2003, the NVC is no longer able to grant consent to the clearance of a substantially intact stratum of native vegetation. Clearances of areas of intact native vegetation are only possible where that action is in accordance with the Native Vegetation Regulations.		Noted
	b	In accordance with Native Vegetation Regulation 5(1)(c) [clearance associated with major projects under Section 48 of the Development Act]:		Noted
		 until a decision has been made on the Section 48 application, the proposal remains subject to the provisions of the Native Vegetation Act 1991. 		
		 any clearance undertaken in accordance with an approved 'major development' must be undertaken in accordance with a management plan approved by the NVC that results in a SEB on the property. That SEB can be achieved by a payment into the Native Vegetation Fund, of an amount considered by the NVC to be sufficient to achieve the SEB. 		
	С	The current proposal is within a significant area of native vegetation that, if assessed in accordance with the provisions of the Native Vegetation Act 1991, would be considered to be part of a substantially intact stratum. This issue, the environmental impacts it entails and the apparent conflict with the assessment of similar proposals requiring native vegetation clearance in South Australia forms the basis of the NVC's objection to the proposal.		3.2.4



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	d	The NVC provided advice on the Issues Paper and that the assessment be conducted at an Environmental Impact Statement (EIS) level as an appropriate reflection of the significance of the vegetation and the potential impacts on native vegetation and the habitat it provides. While the Council notes that this was not subject to Council direction, the omission of most of that advice, including the EIS recommendation is of concern.		Noted
	е	Project location justification: It is understood (via the PER and information supplied by the proponent to the NVC) that the proponent chose the site for the pristine nature of the habitat. The proponent has justified the proposed location on economic grounds: available freehold land, proximity to tourist attractions and amenity values consistent with high-end market expectations. While not offering a comment on the need for a development of this nature in South Australia, the NVC is of the opinion that the proposal could be supported in other locations that did not require the clearance of intact vegetation and the resultant potential for significant impacts to native fauna.	3.1	3.1
	f	The NVC is of the opinion that it is inevitable that even the most responsible development will introduce degradation processes to a site that is otherwise largely untouched. The Council is of the opinion that in this instance this development cannot be realistically 'offset' by other works on the property. That advice reflects the intact nature of the vegetation, the lack of pest plants and animals and the potential for disturbance to existing habitat that may result from the development.	6.3.3.2, 6.5.1.2, 6.5.1.3, 6.3.2.4	3.2.3, 3.2.5, 3.2.6, 3.3
	g	The NVC is concerned that consideration of alternative sites suitable for a development of this nature are not detailed in the PER report. The Council seeks further exploration of alternative sites with reduced environmental impacts on Kangaroo Island in the interests of maintaining biodiversity and ecologically sustainable development. This might include the purchase of cleared land and development of revegetation/habitat restoration program to achieve both an environmental outcome and the qualities desired for such a development.	3.1	3.1
	h	Total area of impact: The footprint of the development is 1 hectare surrounded by a 1.8 ha fuelbreak where all vegetation would be maintained at 300mm height. The total 2.8ha area should be considered as the base disturbance area with additional disturbance likely due to straying visitors, new walking trails and other associated development. While the PER identifies the total area of vegetation to be removed/modified, further assessment is sought on the total impact of the development over the whole site.		3.2.1
	i	Native Vegetation Regulations: The PER incorrectly asserts that alternative land uses could result in more clearance than the current proposal under various Native Vegetation Regulations (PER, Page 46). The application of each exemption, including house sites, presumes approval of other development proposals. Clearance of house sites requires the consideration by the Native Vegetation Council, including location and environmental impacts, particularly for sites supporting intact vegetation. The current development if approved, avoids these levels of scrutiny.	6.3.2.1	
	j	Inconsistency in reporting: The PER is inconsistent in its reporting of potential impacts of the development on the pair of nesting Ospreys found in close proximity to the proposed development. There are conflicting details between the two biological reports regarding Ospreys. Given the potential for the development to impact adversely on this threatened species, clarification of this issue is required including a review of the recommended buffer distance (see below Potential impacts on Osprey).		3.2.6



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	k	General portrayal of potential impacts: The PER projects an unrealistic certainty that over simplifies the expected level of impacts on the overall environment and on threatened species. For example, part 6.3.2.3, page 48 of the PER describes no loss of integrity to the South Coast Regional Ecological Area as the 'proposed development is relatively minor (1 hectare)'. This does not recognise:	6.4.2.2	3.2.2, 3.2.6
		 an additional 1.8 hectare area of vegetation that would be cut and maintained at a level of 300mm as a fire break beyond the 1 hectare footprint, 		
		disturbance to fauna may prompt changes in their habitat use, including the potential for nest abandonment. That disturbance may result from educational experiences and walks for visitors where habitat disturbance is an unintentional but unavoidable outcome. While the report suggests visitor movements will be restricted and therefore of little or no impact, the potential remains for at least some visitors to investigate towards the coast, possibly the beach and other areas. The possibility of fauna disturbance, in particular to threatened species eg. Osprey and Hooded Plover, and the introduction of weeds and soil bourn disease via foot traffic, remains a significant risk,		
		the introduction of edge effects (light, weeds, disease, disturbance) from all cleared areas (including walking tracks) into a previously unopened area. This facilitates land degradation processes that cannot be prevented by the most ecologically sympathetic site management.		
	I	Where the level of an environmental impact is not easily known prior to the event due to for example, the tolerance of sensitive species to ongoing disturbance or changed environmental conditions, the impact should be expected to be high.	6.4.2.2	3.3
	m	Potential impacts on Osprey: As a species particularly sensitive to disturbance, the Osprey issue must be considered extremely carefully. Despite recommendations contained in the PER there is no agreed/known acceptable buffer distance to minimise the potential disturbance for this species. This is not well conveyed by the PER, which instead recommends a buffer distance of 250m. Given that the proposed development site is 1.1km from the Osprey nest site, and that the proponent suggests that visitors would not wander far from the development or require access to the coast, there appears no justifiable reason why the buffer distance should not be at least 1km. This would demonstrate that the proponent recognises the Osprey's serious requirement for no disturbance, and good faith towards conserving the habitat for other wildlife.	6.4.2.2	3.2.6
	n	The proponent submitted a significant environmental benefit proposal to the NVC at its meeting in May 2006. That proposal included two scenarios that the Native Vegetation Council considered did not achieve the required SEB. These were:		NSG
		 place 98ha under Heritage Agreement and a \$37,924 payment into the Native Vegetation Fund, or 		
		 establish a 'Southern Ocean Lodge Environment Fund' with levies exacted from hotel rooms at \$10 per night when the occupancy rates for the proposed development exceed 60%. The proponent estimates a possible \$50,000 per year could be spent on local environmental programs. 		



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	0	Scenario 1: The suggestion of placing a Heritage Agreement over the remaining native vegetation on Lot 9 is not of itself considered to offer a significant environmental benefit. Heritage Agreement status does of itself not result in an improved management of the native vegetation on the property (SEB proposal, pg 5).		NSG
		The Native Vegetation Council acknowledged that the inclusion of the land under a Heritage Agreement may place a degree of protection against future expansion of the development and the associated additional clearance of habitat		
	p	Scenario 2 Describes a purely financial SEB. While the potential for a payment into the Native Vegetation Fund is consistent with the Native Vegetation Regulations, considering the high ecological value of the site, that there may be no SEB payment for sometime after construction and that occupancy may fluctuate according to unpredictable economic factors, there is a lack of certainty with this option that prevents the Council from considering this as something that on its own would achieve the required SEB.		NSG
	q	The Native Vegetation Council resolved at its meeting of 3 May 2006 that:		3.1, 3.2.1
		• it does not oppose the establishment of a tourist of the kind outlined in the proposal, however is strongly of the opinion that the location of the proposed development is inappropriate given the potential impact on areas of intact native vegetation and threatened species,		
		 the clearance is inconsistent with the objects of the Native Vegetation Act 1991, as they relate to the protection and management of areas of intact native vegetation in South Australia, 		
		• it does not support the clearance of native vegetation for the construction of the proposed Southern Ocean Lodge on the basis that it is considered to be seriously at variance with a number of Principles of Clearance under the Native Vegetation Act 1991,		
		• in the opinion of the Council the significant environmental benefits offered as part of the proposed development and consistent with the provisions of Native Vegetation Regulation 5(1)(c) do of themselves, not result in an environmental benefit as required by that regulation.		
	r	The Native Vegetation Council acknowledges that the final decision on approval of the proposed development rests with the Major Development Panel. In the event that the project is approved the Native Vegetation Council requires the Panel to direct the applicant to seek direction from the Council on how to achieve the required Significant Environmental Benefit.		NSG
G10 PI	anning SA			
	а	4.6.1 - Clarification on whether accessing water from the bore supply is part of the proposal or not, and clarification on whether rainwater collection will be sufficient to meet needs of lodge at all times? If some bore water use is likely to occur then more information is required. In particular	4.6.1, 10.1	4.1
		Will the construction phase include installing the pipe from the bore to the lodge and what are its potential impacts?		
		Are the groundwater supplies and associated flow rates adequate. Local knowledge suggests that they and are not well understood		



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	b	Could the staff quarters be located elsewhere eg in an area where vegetation removal was not required, either on this title or a nearby location? Is it possible to have staff working on a rotational shift basis so that fewer cabins are required eg 2 staff staying at lodge each night (between 1 lpm-6am) to provide 24 hours service if required?		4.4
	С	Is Baillie Lodges seeking Eco Certified "advanced ecotourism" status for the proposal?		NSG
	d	Will use of the helipad be strictly confined to emergency uses only?		3.6.2
	е	Is any signage proposed on the South Coast Rd?		3.6.2
	f	7.2 Planning Strategy. Response in the PER is brief. More detailed assessment should be provided including that against the following relevant strategies:	Appendix J	3.8
		Economic Strategies 11 & 12b		
		Environment & Resources 3b & e, 5a, 6g & 17b		
		 Kangaroo Island Planning and Development Area Strategies 14c,e & f & 5 		
		Development Plan (Appendix J)		
		 Comment on Environmental policies (p5) refers to the 'productive garden', which the PER report states has been removed. 		
		 A number of relevant policies in the Kangaroo Island Development Plan have not been commented on including Council Wide Objectives 70 & 71 and PDC's 213, 217, 248 & 249 		
		 PDC 16 which lists non-complying types of developments is also not specifically addressed. Please address this in view of the fact that the proposal could potentially be considered non-complying when taking into account the staff village accommodation. 		
	g	17.7.1- What number of people could be safely accommodated in the safe bushfire refuge area? If the lodge was fully occupied, would it be necessary for the beach to be also used as a refuge area?		3.4
	h	17.8.2 Are there any potential environmental impacts from using fire fighting foam in a coastal area?	17.8.2	3.4.1
	i	Guideline 5.2.23 which related to ecological burning to manage biodiversity on the site is not covered in Section 17		3.4.1
	j	Is the irrigation system comprehensive enough to ensure complete overlap of sprinklers.?		3.4
	k	In the fire management section it apparently states that the vegetation will be pruned in 300mm to manage fire. Can these species survive continual pruning to this height?		3.2.2
	1	Is the plunge pool referred to in the water report that small pool which appears on the lower terrace of the main lodge?	Appendix D	
	m	What methods will be used to attract and retain staff in such a remote location?		4.4
	n	Has there been a traffic study prepared that assesses the potential impact of increased traffic on South West River Rd?		3.6



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	0	If rainfall is not enough have the proponents looked into the possibility of requiring future approvals for the use of bore water on Kangaroo Island? (At the moment they are not required but this may be the case in future as with many parts of the state.)		4.1
	р	Construction should take place outside Osprey breeding season to avoid disturbance. Construction should also take place outside the migratory season. The report describes the impacts of feral cats and states it will develop a feral Management plan however this has not been included in the report.		3.2.6
	q	The report states the water will be treated but the actual process to be used is only discussed as options in Appendix E. Which option is the proponent going to use and what are the potential impacts of the chosen option ie the use of chemicals?	10.2.1, 10.2.2.1	4.1
	r	Will the area disturbed be revegetated if the development requires decommissioning?		4.8
	s	It is not properly explained why the project is likely to have no impact on the Collared sparrow hawk and the Nankeen Kestrel- if these species are disrupted by the development and habitat is removed then the project is likely to have an impact.		3.2.6
	t	Having information in rooms for guests to read regarding the appropriate behaviour in the lodge and the surrounding environment may not be effective as people may not read it. Therefore it may be more effective if guests are informed when they check in.		Noted
	u	During construction the water will be diverted away from the buildings. Will this be done during the operational phase and if so how?	10.3	4.1
	V	On page 122 the report states that organic waste will be composted on site for use in the productive garden however in section 6.5.2.1 it states that the plan for this garden has been disregarded.		3.8
	w	All vegetation along lay down areas and areas that will be rehabilitated after construction should have the vegetation cleared from these areas re-spread over them to reduce the possibility of erosion and increase the potential for natural regeneration	22	3.2.3
	х	Some construction inspections should be undertaken by the project manager or another impartial person to gain an independent view of construction.	22	Noted
	у	In section 22.12 it states that Hooded Plovers will be visually monitored. If there are sightings the information should be recorded including their location. All construction personnel should be made aware of these birds so that they can be easily identified	22	3.2.6
	Z	Section 22.17 should also include "ensure all at risk contractors and vehicles entering the site use the wash down areas" At the moment it only states this when leaving the site.	22	4.3
	aa	Section 24- the chemicals and hazardous materials management should state that other chemicals that may be required, such as acids, must be kept within the bunded areas.	24	Noted
	ab	Has power generation options used in Aboriginal Communities (eg solar farm in AP Lands) been thoroughly investigated as an alternative source of power to generator?		3.6.1



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	ac	Why is there only a 250m buffer around the Osprey when ideally there should be 400m?	6.4.2.2	3.2.6
*G11 I	Department of	Transport, Energy and Infrastructure – Transport Services Division and Transport Planning Division		
	а	Raise no objection to the Public Environment Report.		Noted
MP1 N	lichael Pengil	ly MP		
	а	Appreciative of the thoroughness of information & considerable information sources.		Noted
	b	The multitude of advice and professional opinion could not be disputed nor faulted.		Noted
	С	Knows the area and has visited the site plus agrees that Council's Development Plan allows for the proposal		Noted
	d	No foreseeable reason why it should not be approved in due course.		Noted
	е	Sources have revealed that there are State Government departments that oppose the development for reasons that seem philosophical and not sensible.		Noted
LG1 K	angaroo Islar	nd Council	1	
	а	Council considered the PER and passed the following resolutions at the 10 th May meeting:		
	b	Council does not support the proposed development in its present proposed location.	3.1	3.1
	С	In the event the development is approved, the upgrade of Hanson Bay Road should be at the cost of the Southern Ocean Lodge	4.7	3.6.2
*LG2	Kangaroo Isla	nd District Bushfire Prevention Committee		
	а	The frequency of fires in the vicinity of the site is underestimated due to the omission of fires that occurred in 1954, 1958, and 1970, all of which either burnt the site or to within 5 kms of it. Thus the bushfire risk to the development has been underestimated. The reference to bushfire events resulting in the destruction of many thousands of hectares is misleading, wildfire events are natural occurrences and are an integral part of the Island's ecology resulting in cyclic renewal of areas of native vegetation. Bushfires will continue to happen in the future, despite the best efforts of the community to prevent and suppress them, and they have the potential to have significant impacts on assets.		Noted
	b	The overall fuel hazard for the vegetation that occurs on the site of the development was assessed by the Fahrenheit 451 Fire Management Project (Dowie 2005) as extreme in the northern section, very high through the centre section and high in the section immediately adjacent to the coast. Therefore the proposed development will be exposed to a significant bushfire threat on days of very high to extreme fire danger.		3.4



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	С	The highest bushfire threat to the buildings will be from the north-east to west due to winds from these directions being associated with high temperatures, low humidity and high speeds during the bushfire season. This exposes the proposed development to a significant bushfire threat as the north-eastern, northern and western sides of the buildings are adjacent to very high fuel hazard. The lower fuel hazard to the south of the buildings will not reduce this high level of threat. Extensive areas of glass on the northern faces of the main buildings will be vulnerable to radiant heat. The design of the buildings exposes the maximum area of the buildings to the maximum bushfire threat due to their east-west orientation and the consequent exposure of the northern and western aspects to very high fuel hazard. The ridge to the west of the buildings is unlikely to significantly reduce fire intensity or forward rate of spread in high, very high or extreme fire weather conditions.		3.4
	d	On the plan of the fire protection system there are 101 garden butterfly sprinklers with a water consumption rate of 10 litres/min which equates to and hourly consumption rate of 60,600 litres. There appear to be at least 250 under-eave sprinklers and 54 roof mounted sprinklers (the detail in the plan is poor making it difficult to determine actual numbers). These sprinklers have a consumption rate of 4 litres/min which equates to an hourly consumption rate of 72,960 litres. Thus to run the sprinkler system for one hour will consume 133,560 ltrs of the 150,000 litres of fire fighting water storage. This leaves just 16,440 litres available for use in the hose reels, or just over 20 minutes of operational time (16 hose reels @ 47 litres/min). These figures indicate that there is barely enough water available to adequately protect the development from bushfires given that the buildings will be subjected to prolonged ember attack for a considerable period of time prior to the arrival of the fire front.		3.4.1, 3.4.2
		The butterfly sprinklers spray water droplets into the air to provide a blanket of water to saturate buildings and vegetation ahead of an approaching fire front. This both extinguishes embers and cools radiant heat. Under extreme weather conditions however, an approaching fire front will generate very strong, super-heated winds that will preheat any pre-fire saturated vegetation/buildings and cause any aerial sprays to be largely ineffective.		
		It is stated that there will be a 100% overlap in sprinklers placed adjacent to the buildings. The Fire Protection System Plan indicates these sprinklers have a six metre radius but they are shown as being twelve metres apart on the Fire Protection System Plan. This spacing does not allow for any overlap and in the high winds associated with very high or extreme fire weather will result in discontinuous wetting of vegetation. To achieve the stated 100% overlap will require doubling of the number of perimeter sprinklers. This will increase the hourly rate of water consumption to 194,160 litres which is in excess of the stated fire fighting water storage capacity. This will have significant implications for the amount of water storage required to operate the system and the capacity of fire fighting pumping systems.		
		No provision has been made for additional protection of diesel and gas storage in the event of a bushfire. The close proximity of the fuel storage to the safe refuge area is an issue that should be addressed.		
	е	Evacuation of staff and guests to the beach should not be considered as a strategy under any circumstances in the event of a bushfire threatening the proposed development. This would expose staff and guests on the beach to extreme radiant heat, embers and smoke. Superheated air could result in a difficulty to breathe and the burning of internal soft tissue in the lungs and trachea. In addition to this there is an increased risk of staff and guests being exposed during their 400 metre walk from the buildings to the beach.		3.4.2



Туре	Comment	Summary	Reference in PER	Reference in Response Document
	f	It is stated that the bushfire threat to the development will be managed without reliance on outside resources. In order for staff to become proficient in the fire fighting skills required to adequately protect the buildings and guests during a bushfire they will need not only training but also fire fighting experience. Maintaining adequate levels of training and experience of enough staff to be able to carry out on site fire fighting and management of guests will be extremely difficult given the usual high levels of staff turn-over in the hospitality industry. Without the required level of training and experience the proposed protection measures and strategies are unlikely to be effective in protecting staff, guests and assets on the site in the event of a bushfire.		3.4.2
		The provision of a small fire unit on the site is supported so long as there are suitably trained and experienced staff to operate it safely in the event of a bushfire threatening or originating on the site and the unit is maintained to a high operational standard.		
	g	No reference has been made to what strategies will be used to reduce the likelihood of fire ignition on the site.		3.4
	h	No reference has been made to what strategies and management actions will be put in place to ensure that the ecological processes on the site will be maintained. Natural disturbance regimes such as periodic fire events will need to occur in order for the biodiversity of the site to be maintained.		3.4.1
	i	Under extreme conditions burning native vegetation 300 mm high may result in flame heights in excess of 3m.		3.4
	j	No reference has been made to the preparation of a Fire Management Plan for the property. This would be considered fundamental and essential. Such a document will be required to direct fire prevention and protection measures and to address the need to consider fire as part of the long-term ecological management of the site if the development is to be ecologically sustainable. Such a plan could incorporate some form of research or monitoring component to advance the understanding of fire effects on the areas flora and fauna.		3.4

^{*} Submissions in italics were received after the due date of May 17 2006.

Appendix C

Key issues from public submissions



Key issues from public submissions

The following is a summary of the key issues raised in the public submissions on the Southern Ocean Lodge PER document.

Codes: PER = Public Environment Report, RD = Response Document, NSG = Not in Scope of Guidelines

Comments	Response
Site Selection and evaluation	
The environmental impacts caused by the project could be minimised if the development	PER 3.1
was located where there has already been some human disturbance. Developers could lead the way in re-vegetating a site for an eco-tourism project.	RD 3.1
The development is located in one of the most biologically intact areas of the island.	RD 3.1
The report gave no economic and environmental statistics from other eco-lodges.	NSG
Encumbrances cannot be guaranteed beyond the short term.	PER 3.3
	RD 3.6
The development is not in the correct zone according to the Tourism Plan.	PER 7.1
Inadequate justification was given in the report for the location of the site from an	PER 3.1
environmental and economic perspective.	RD 3.1
The development may set a precedent for future development.	PER 3.3
The report should have given more consideration of alternative sites.	PER 3.1
	RD 3.1
Environmental Management	
All management procedures are done 'in-house'. There was no scope for independent inspection or public access to monthly data within the report.	RD 4.3
No plan was given for when environmental information will be imparted to guests and whether it would be compulsory or not, within the report.	PER 23.5
The environmental survey included in the report does not reflect a thorough research base.	Undertaken to meet Guidelines
Flora	
The Lodge will degrade the link between Flinders Chase National Park and Kelly Hill Conservation Park.	RD 3.3
The report was not clear on the impacts of edge effects.	PER 6.3.2.5
	RD 3.2.2, 3.2.6
The report gave no consideration of vegetation clearance causing a change in wind dynamics leading to greater sand movements or 'scalds'.	RD 3.2.3
The report dismissed significant ecological issues as either being of minimal effect or a minor issue.	RD 3.3
Revegetation should use local provenances not endemic species.	PER 6.3.3.2
	RD 3.2.3
Deliberate pruning will be detrimental to many of the plants – they are attuned to fire as a	PER 17.6.1.1
means of pruning, with some browsing by mammals and it will lead to the loss of canopy and mid-storey vegetation.	RD 3.2.2
Vegetation 'modification' is a form of clearance thus cleared area will double to 2.8 hectares.	RD 3.2.1
Vegetation clearance for access tracks is likely to be more than 5 metres and does not	PER 4.8
include turning bays.	RD 3.2.1
The developer fails to understand the impact of fragmentation on the wilderness.	PER 6.3.2.6
	RD 3.3



Comments	Response
It is unclear if further clearance at the helipad will be required for safe operation.	RD 3.6.2
It has not been indicated in the report how vegetation clearance figures were calculated.	PER 6.3.2.1, 17.8.1
	RD 3.2.1
Regionally rare and endangered species: sand brome, KI trigger plant, spiky saw-sedge, native lilac, coastal silver wattle (and possibly short hair plume-grass).	PER 6.3.1.2
Nationally rare species: Calytrix smeatoniana spp., Albopurpurea, Hydrocotyle comocarpa, Micrantheum demissum and Petrophile multisecta.	Noted
On State Register as rare: Choretum sicatum and Gastrodia sesamoides	Noted
Fauna	
The Osprey, Hooded Plover, Southern Brown Bandicoot, Kangaroo Island Dunnart and Heath Rat are listed under the Commonwealth governments "15 National Biodiversity Hotspots" and live in a habitat type proposed for removal.	RD 3.2.6
Increased activity will impact on the Osprey - their nests are vulnerable to desertion	PER 6.4.2.2
should the level of disturbance increase (there is a nesting pair at the site).	RD 3.2.6
The buffer zone distance to Osprey nests is in-adequate.	PER 6.4.2.2
	RD 3.2.6
Increased activity will disturb the breeding and feeding of hooded plovers.	PER 6.4.2.2
	RD 3.2.6
Habitat loss will increase pressures on the Southern Brown Bandicoot and Kangaroo	PER 6.4.2.2
Island Dunnart.	RD 3.2.7
The Western Whipbird and the Bush Stone Curlew (endangered under State legislation) may be present in the native vegetation of the proposed site.	PER 6.4.2.2
No mention of the impact of night lights, noise of smoke from generators on Remarkable	PER 6.4.2.4
Rocks and all the surrounding environments was given in the report.	RD 3.2.2, 3.2.6
No guarantee was given in the report that all recommendations from the Biological and Bird Survey will be implemented.	PER 21 & 22 (EMP)
No survey has been done following a fire. The report has not adequately canvassed the past or future.	NSG
The report did not indicate how fauna will be prevented from accessing food waste.	NSG
The Botanical and Bird Survey did not include other fauna species and invertebrates.	Met requirements of Guidelines
Currently too little is known about the ecology of Kangaroo Island and its eco-systems to allow such a development to proceed without consequences.	NSG
The report did not consider management strategies for feral cat populations.	PER 23.13
	RD 3.2.6
Weeds	
Soils disturbance in dune areas will lead to the invasion of weed species that will leave long lived seeds (especially Bristly Poppy which is often only seen after disturbance).	PER 6.5
The report did not indicate if any hygiene practices have been employed to date to prevent vehicle/heavy machinery introducing Phytophthora and weed species.	NSG
Sustainability	
The development will only benefit a few financially and will degrade the pristine status of the island for the majority.	PER 13.2, 13.3, 13.
	RD 3.5
Report did not show how the development supports the precautionary principle.	PER 15.1.3
Development contradicts principle of sustainability.	PER 15
Long-term impacts were not analysed or addressed in the report.	PER 15.1.2



Comments	Response
The report does not provide any information on sustainability monitoring and whether operations will be reviewed and modified if a high level of sustainability is not maintained.	PER 15.3
Landform	
Chosen site is a fragile dune system, prone to erosion and slow recovery. Even minor	PER 9.2, 9.4
disturbances are likely to elevate erosion impacts.	RD 3.2.3
Developer claims to divert water from non-vegetated areas but it is not stated where the water will go.	RD 4.1
Re-vegetation of bare areas will be difficult and slow. Therefore, long-term impact will be much larger than the 1 hectare stated in the report.	RD 3.2.1, 3.2.3
Coastal Processes	
The 100 metre buffer between the development and high water mark will be inadequate if there is a failure to contain stormwater or in the event of an extreme coastal erosion event.	RD 4.1
The report did not consider experience from other constructions on the southern coastline which suggest that erosion will be difficult to control and reverse.	RD 3.2.3
Water Management	
The report did not show treatment areas for the Biolytix System on any of the plans.	PER 10.2
Supply of bore water relies on good will of nearby land owners. The proponent can give no guarantee of water supply from bores in the future.	RD 4.1
Eco-tourism developments should be self-sufficient for water and waste.	Noted
It is unlikely that tourists will minimise water usage.	PER 10.1 – water- saving measures implemented
It is unclear whether the estimated supply of water is achievable compared with the availability of groundwater.	RD 4.1
The 'wellness spa' is at odds with the concept of water conservation.	PER 10.1 – water- saving measures implemented
The report failed to include an adequate analysis of available rainfall data and trends.	PER 10
There are concerns that waste water will eventually reach the coast through seepage.	RD 4.1
The report states groundwater can be used if needed from a bore 2 kilometres away,	PER 10.1
however does not mention the construction of a pipe or other means of transporting this water and its subsequent impacts on the environment.	RD 4.1
The disused bore mentioned in the report is presumably the deep bore at Kangaroo Island Wilderness Resort. No geological evidence given to suggest that the aquifer is recharged annually.	PER 10.2 – bore located on Hanson Bay Sanctuary
	RD 4.1
No flow rates for the bore were provided, casting doubt on fire fighter reserve volumes.	RD 4.1 – Use of bore is not included in application
No consideration was given to the effects of salinity of bore water and sea-spray in rainwater affecting the Biolytix system's ability to purify water.	NSG
Economics	
No evidence is given to support the economic viability of the development or economic sustainability of environmental monitoring measures given in the Environmental Management Plan.	PER 13
Monetary figures quoted in the report had no timeframe attached.	NSG
There are concerns that the development will lead to increased commercialisation of Kangaroo Island and Hanson Bay.	PER 13
	Noted



Comments	Response
The project offers no widespread benefits for the local community.	PER 13.2, 13.3
	RD 3.5
The report does not make it clear where the \$0.45 million in additional spending will be directed.	PER Appendix L
The report gave no triple bottom line analysis to compare the development with other parts of the tourism sector and/or within the same sector.	NSG
The style and placement of the development means staff will predominantly fly-in and fly-out.	PER 4.7
There is concern over the viability of the facility given increasing oil prices which affect diesel fuel and aviation costs.	NSG
Fire and Emergency Procedures	
The proponent has demonstrated a poor knowledge of fire in Mallee vegetation.	RD 3.4
The report gave a technical error relating to perimeter vegetation saturation. 100% overlap will require double the number of sprinklers which will in turn require double the	PER 17.6.2.1 RD 3.4
amount of water.	ND 3.4
There are concerns that the amount of water supplied for fire fighting will be inadequate.	PER 4.6.7, 17.6.2.5
	RD 3.4.1
The report did not mention insurance related to fire risk.	NSG
It is not clear how people will be evacuated in a bush fire if the road in and out of the development is blocked.	PER 17.5.1, 17.6.1.3 17.7.1
	RD 3.4.2
The figures given in the report relating to sprinkler numbers and water storage means that	PER 17.6.2
after one hour of sprinkler operation there will only be enough water left for 8 minutes of nosing.	RD 3.4.1
The fire management plan should be independently re-assessed.	RD 3.4
The report gave no indication of additional protection for the diesel and gas storage areas in the event of a fire.	RD 3.4.2
The report stated that staff and guests could be evacuated to the beach in the event of a bushfire. This should not be considered a viable evacuation strategy due to high risk and danger involved with this evacuation route.	PER 17.7.1 RD 3.4.2.
Maintaining adequate levels of fire training, as the report recommended, is unlikely to be	PER 17.7.2
effective in protecting staff, guests and assets on site.	RD 3.4.2
More detail is required as to what will occur in an emergency as there is no ambulance based at Parndana, RFDS from Vivonne Bay is unheard of and the closest is at Gosse, backup from Kingscote (1 hour away).	PER 17.7.3, 18
The report gives no reference to management strategies post fire.	RD 3.4.2
The report does not identify any strategies that will be implemented to reduce fire ignition on site.	RD 3.4
Will guests be warned of the risks of this remote location ie. Emergency evacuation, safety implications and costs?	Management issue – NSG
It is not clear what the effect of fire fighting chemicals will have on the environment.	PER 17.8.2
	RD 3.4.1
Power	
Power generators will increase greenhouse pollution, noise, smoke and are prone to disruption.	RD 3.6.1
The report does not make clear what the impact of power consumption will have on other users in the grid.	PER 4.6.3
The report does not make clear why solar or wind energy was not used instead of diesel or gas power, especially as this is proposed as an eco-tourism venture.	PER 4.6.3
	RD 3.6.1



Commonts	Danners
Comments	Response
No consideration of dangers related to diesel generators and storage was given in the report.	RD 3.4.2
The north south orientation of the development does not maximise the use of the winter sun.	PER 4.3
The project proposes the use of large windows which will cause large amounts of energy loss.	PER 4.3
Construction	
The report gives no indication of who will inspect the construction activities and who will audit the inspectors.	PER 22.2
No details are given as to how four water storage tanks totalling 1.2 million Litres will be installed without disturbing the landscape.	Construction details are to be confirmed
Will changes be made to building/infrastructure plans if problems arise during construction?	PER 22 (EMP)
The report does not appreciate the difficulties of construction.	Construction details are to be confirmed
Heritage	
The wording relating to a heritage agreement varies throughout the report and no firm decision has been made.	RD 3.3
The report did not mention that the development is within the 'Tandanya Natural Area' which is on the Register of the National Estate.	RD 4.6
Legislation and Development Plan	
This development should have been subject to the full Environmental Impact Assessment process.	NSG
It appears that the development contravenes several principles of the Natural Resource Management Act 2004.	PER 6.2.4
The Major Development process has been used inappropriately to bypass the Development Plan and the Native Vegetation Act.	NSG
The report did not adequately assess the development according to Ecologically Sustainable Development.	PER 15
The development contravenes the Costal Landscape Zone of the Development Plan and other general objectives and principles.	PER 7, Appendix J RD 3.8
Transport and Access	1.2 0.0
The project will require the Hanson Bay Road to be bituminised at some point in the	PER 4.7, 4.8
future at considerable cost to the government.	RD 3.6.2
There are concerns with the increase usage of Hanson Bay Road.	PER 4.8
	RD 3.6.2
No detail was given as to where the beach access paths will be or what they will be made of.	PER 4.9
Recommendations from the Botanical and Bird Survey for location of walkways has not been adopted.	PER 21 & 22 (EMP)
Decommissioning	
The report gave no indication of procedures if the development is sold or closed down.	PER 5.7
	RD 4.8
Waste	DED 44.0. 51.1.55.
The report did not address how solid waste would be managed.	PER 11.3, 21.4, 22.5, 23.7
The report did not address how the increased nutrient levels in the soil due to solid waste disposal would be managed.	No disposal on-site



Comments	Response
Community	
Local food may not be used as it doesn't satisfy the developer's aims.	NSG
No staff units appropriate for families were detailed in the design. There are also no additional school numbers available for staff members' children.	Noted
The employment opportunities the project provides for locals will be limited to Laundry and Maintenance.	13.5

Appendix D

Fire protection plan



Fire protection plan

