

Submission on Application
Development Act 1993
Section 46B – Environmental Impact Statement – Major Development

Applicant: Southern Launch.Space Pty Ltd
Development Number: 932/P007/19
Nature of Development: Whalers Way Orbital Launch Complex
 Proposal
Assessment Level: Environmental Impact Statement
Subject Land: Lot 101 Right Whale Road, Sleaford
Phone Number: 1800 752 664
Close Date: 16 September 2021

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Affected property (if different from postal address)	
<i>You may be contacted by your nominated method of contact for further clarification or notification of a decision.</i>	
My interests are (tick or circle):	Owner of local property
	Occupier of local property
	A representative of a company/other organisation affected by the proposal
	A private citizen
Other: <input checked="" type="checkbox"/>	Representative of Conservation Focussed NGO

**Submissions will be made available for public inspection on the PlanSA Portal and will be addressed in the proponent's Response Document (to be released for public information at a later date).

The aspects of the proposal I wish to make comment on are (add pages as required):

- 1 The impact of the proposed development on bird species listed as **Endangered**, namely the Eyre Peninsula Southern Emu-wren (*Stipiturus malachurus parimeda*), the subspecies of the White-bellied Whipbird (*Psophodes leucogaster leucogaster*), the White-bellied Sea Eagle (*Haliaeetus leucogaster*) and the Eastern Osprey (*Pandion cristatus*).
- 2 The data that are needed to determine the impact of the development on listed bird species.
- 3 The selection of the launch pad sites.
- 4 Offsetting requirements for the flora and fauna that are negatively impacted by this proposed development.
- 5 The fire prevention and response actions proposed for this development.

1 Impact on Birds Listed as Endangered

The Southern Launch project at Whaler's Way will have a significant adverse impact on two threatened bird sub-species, the Eyre Peninsula Southern Emu-wren, listed as **Endangered** by National Parks & Wildlife SA and the Western Whipbird (eastern), also known as the White-bellied Whipbird, listed as **Endangered** by National Parks & Wildlife SA.



Eyre Peninsula Southern Emu-wren (male) / *Stipiturus malachurus parimeda*
Kellidie Bay Conservation Park, South Australia 25 August 2013 / Dion Thompson

The development of the site is an immediate threat to the survival of these two highly localised birds. Both species occupy highly fragmented habitat and are very poor dispersers. They are therefore both highly susceptible to fire, something that was recently demonstrated by the near extinction of the Mallee Emu-wren in SA & Victoria, and the loss of half of the population of Western Whipbird on Kangaroo Island resulting from recent fires.

Both bird species are highly susceptible to predation by cats and foxes. Predator proof fencing is mentioned as being in the planning stage in the documentation. Actions to address introduced predators should be specified in the documentation and a firm commitment to predator proof fencing and its implementation should be a condition of project approval.

The synergistic impact of wild-fire and subsequent vulnerability to predation has been shown on Kangaroo Island to have a catastrophic impact on many smaller birds and other animals.

The Eyre Peninsula Southern Emu-wren, *Stipiturus malachurus parimeda*, only occurs in South Australia where it is confined to the extreme south of the Eyre Peninsula in an area of 50–75 sq km. Data from the Federal Department of Agriculture, Water and the Environment advises that the Eyre Peninsula Southern Emu-wren is particularly threatened, with an estimate of less than 1000 individuals remaining.

http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=26006

This translates to an estimated 350 breeding pairs maximum remaining, and Whaler's Way is one of "five populations that are considered to be important for the long-term survival and recovery of the Southern Emu-wren (Eyre Peninsula)."



Eyre Peninsula Southern Emu-wren (male) / *Stipiturus malachurus parimeda*
Kellidie Bay Conservation Park, South Australia 25 August 2013 / Dion Thompson



White-bellied Whipbird / *Psophodes leucogaster leucogaster*
Port Lincoln, South Australia / 15 September 2013 / Dion Thompson

The project area lies within one of three sub-regions identified in SA as retaining significant breeding habitat for the Eastern Osprey and the White-bellied Sea Eagle. Expert opinion on raptor behaviour, in relation to the Southern Launch development, is as follows:
“in recognition of the documented population declines for both these species (the Osprey and White-bellied Sea Eagle), the prospect of industrial development being permitted over yet another stretch of critical habitat must be regarded as grossly irresponsible”, and “the proposed development and increased activity at Whalers Way, which would include the unknown impacts of extreme noise events, can only serve to exacerbate the habitat degradation processes already affecting the several threatened species which occur there in isolated/remnant populations.”

Overall, Birds SA is concerned that the project represents further encroachment on our natural coastal areas by industrial development and increased human activity. This is a direct threat to the Eyre Peninsula Southern Emu-wren and White-bellied Whipbird. Increased activity in the area may also reduce the breeding habitat available to disturbance sensitive species including the **Endangered** large raptors, the Eastern Osprey and the White-bellied Sea Eagle.

2 Data Required to Determine Impact on Listed Bird Species

The bird survey data provided by Southern Launch in its supporting literature are wholly inadequate and offer no basis for assessing the likely impacts of the operations or any potential secondary impacts (e.g., increased fires or predation by feral animals) on either sub-species. The bird survey data provide no recent measures of the total Eyre Peninsula Southern Emu-wren or Whipbird populations or population trends on Eyre Peninsula, a critical omission. Such data should be acquired before construction of any launch facilities begins to provide a sensible baseline upon which to monitor the impact of the facility.

3 Selection of Launch Pad Sites

The current location for launch site A is the worst possible place on the entire site for impact on the Eyre Peninsula Southern Emu-wren.

Historic survey records and 2020 survey records show a concentration of the Emu-wrens exactly where Southern Launch are proposing to clear for Launch Site A, (shown as Area A in Figure 1). If this launch pad proceeds at this site, it will immediately destroy the majority of the nesting, feeding and roosting habitat for the Eyre Peninsula Southern Emu-wren at Whalers Way.

It is imperative that launch site locations are proven to be well away from nesting habitat of both the Eyre Peninsula Southern Emu-wren and the White-bellied Whipbird.

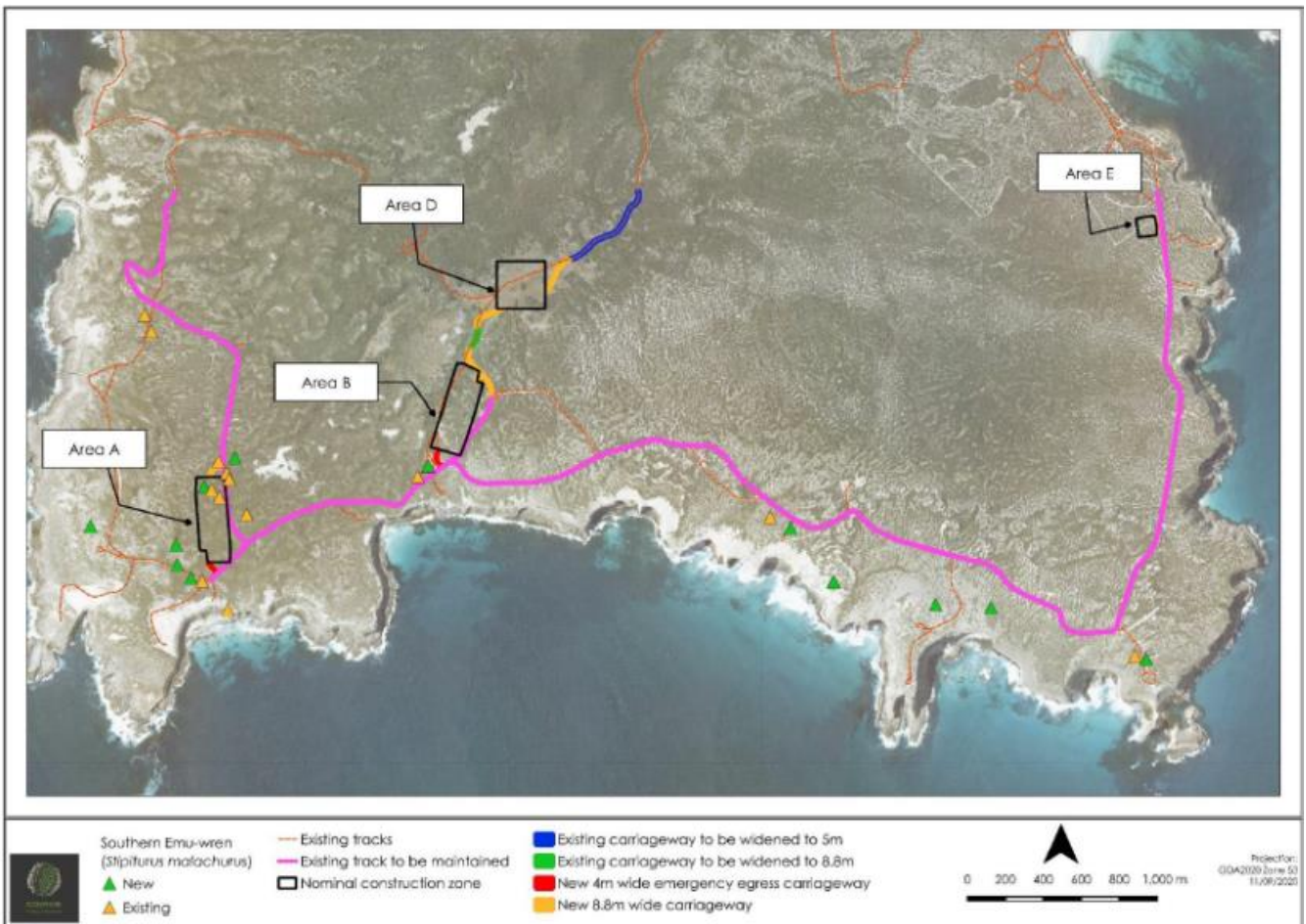


Figure 1 – New (2020) and existing survey records for Eyre Peninsula Southern Emu-wren

4 Offsetting Requirements

The EPBC Referral for this project highlighted the serious adverse impact of this project on the Eyre Peninsula Southern Emu-wren and the White-bellied Whiplbird.

Even with Site A moved to a less catastrophic location, meaningful and focused offsets are essential.

As the Eyre Peninsula Southern Emu-wren is so rare and the potential consequences of a major regional fire event likely to be terminal for the species, a fully funded captive breeding program should be immediately established (similar to that for the Mallee Emu-wren at Monarto Safari Park, SA).

Furthermore, all offset obligations from this project must be targeted at establishing equivalent habitat which demonstrably benefits the Eyre Peninsula Southern Emu-wren and White-bellied Whiplbird populations on the southern Eyre Peninsula ahead of any clearance of Whalers Way habitat.

The offset strategies and commitments need to be provided in the EIS documentation as well as details of how offset benefits will be demonstrated and measured.

The calculation of area impacted, upon which the offset obligation is calculated, requires review. It appears that significant areas for the construction of fire breaks and road widening have been omitted from the calculation.

5 Fire Prevention and Response

The Commonwealth Department of Agriculture Water and the Environment website highlights the catastrophic impact on the Eyre Peninsula Southern Emu-wren of a major fire at Whalers Way: *“there is little or no chance that an area affected by fire will be recolonised, due to the fragmented nature of the habitat and the subsequent inability of the birds to disperse effectively.”*

Whilst the fire risk is acknowledged in the Southern Launch supporting documents, there is no detailed information provided as to how they will address this risk. Presumably launches will not occur during days of high fire risk. However, there is no information on what weather and vegetation conditions would lead to the suspension of operations due to fire risk – clearly a major omission.

There is also insufficient detail on fire prevention measures or the range of resources that will be available to respond immediately to a fire event.

This is another major omission considering that fire is such an obvious risk at this location. It suggests that Southern Launch is, for some reason, unwilling to provide details in the supporting documents.

As we have seen in the tragic fires of Kangaroo Island 2020, Yorketown 2019 and Wangary 2005, once a fire gets hold in these remote and windy coastal areas of South Australia, with very small and thinly-spread local fire services, it can soon get out of control and destroy a huge area.

The **Kangaroo Island fire of Jan 2020** was responsible for the loss of two lives and burnt 211,474 hectares, destroyed 87 dwellings, 332 outbuildings, 322 vehicles, and killed more than 59,000 stock animals.

The **Yorketown fire of Nov 2019** destroyed 5,000 hectares, 8 dwellings, 11 sheds, \$600k of machinery and came within 100m of the township of Edithburgh.

The **Wangary fire of 2005** on southern Eyre Peninsula burnt 77,900 hectares, nine lives were lost with injuries to 115 other persons, 93 houses and 316 sheds were destroyed or significantly damaged and there were 47,000 stock losses.

If similar fires to these occur on the Eyre Peninsula as the result of a mishap at the Southern Launch Complex, it is entirely possible that similar devastating consequences would ensue. It follows that the Eyre Peninsula Southern Emu-wren could be rendered extinct. Also impacted would be the 15 other threatened bird species known to inhabit Whalers Way (listed in Section 9.0 of the EIS).

The Emergency Management Plan has been redacted from the EIS document. The statement that a CFS crew will be on hand during the initial launches from the site does little to increase confidence that all steps have been taken to both minimise fire risk and to respond to fire.

It is imperative that Southern Launch sets out a thorough program that shows how it will minimise the risk of fire from its operations at Whaler’s Way and how it will respond to a fire event. This program should be detailed in a separate Appendix in the EIS documentation and be available for public scrutiny. As a minimum it should contain:

- Detailed descriptions of all the situations that could potentially lead to a fire breaking out.
- Details of the actions that will be taken to minimise the risks of such fires breaking out (not just a reference to a mandated standard).

- Details of all fire hazard monitoring to be carried out at the site as well as fire response training and procedures.
- Details of the equipment and human resources that will be available should a fire break out.
- The timeframes within which these resources can be brought to bear.
- The conditions under which operations are suspended because of fire risk for both the construction and operational phases of the facility.

Bearing in mind the foregoing, the fact that rocket test launch activities have already commenced at Whalers Way indicates a serious flaw in the approval process for this project.

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