

From: [Dan Monceaux](#)
To: [EPBC Referrals](#)
Subject: 2015/7592 - Oceanic Victor referral submission
Date: Wednesday, 11 November 2015 12:28:52 AM
Attachments: [Oceanic Victor EPBC referral submission - Dan Monceaux.pdf](#)

Please find attached by submission in response to:

Oceanic Victor Pty Ltd/Tourism and Recreation/waters off Encounter Bay, 600m
SE Victor Harbour/South Australia/Oceanic Victor Viewing Platform Proposal, SA

Referral: 2015/7592

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Dan Monceaux

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Oceanic Victor Pty Ltd/Tourism and Recreation/waters off Encounter Bay, 600m SE Victor Harbour/South Australia/Oceanic Victor Viewing Platform Proposal, SA

Referral: 2015/7592

I would like to begin my personal submission by pointing out that this proposal by Oceanic Victor is the first time that any sea-cage aquaculture related operation in South Australia has ever been referred to the EPBC Act. Let me firstly commend the proponents for acknowledging the importance of EPBC referral, given the variety of sensitive receptors present in the vicinity of the proposed action.

The sea cage ranching of southern bluefin tuna is a significant economic activity in South Australia. It is also one that I would argue, receives substantial protection from the State Government and its agencies, which limit the disclosure of many of this industry's activities, including its pollution profile and environmental monitoring reports.

I would like to support this statement with an example relevant as context to this proposal. The proponents have, for the most part, presented the argument that because PIRSA considers Oceanic Victor's proposal to be consistent with 'ecologically sustainable development' that should be adequate to persuade the EPBC assessors that their proposal should not be a 'Controlled Action.' I wish to challenge this.

In 2001, a methodology was developed by the Federal Government to allow seacage aquaculture operators to estimate the pollution burden of their activities on the marine environment (nutrient loading from excess feed and fish faeces). At this time, aquaculture was exempt from what were mandatory reporting requirements of pollution to water for almost all other industrial activities. In 2007, the aquaculture exemption came under review, and the Environment Department recommended that the exemption be removed. South Australia's Environment Minister at the time, Gail Gago, voted in support of the interests of the aquaculture sector, and against the advice of the Federal Environment Department and members of the conservation sector. As a result of a vote taken by the states' Environment Ministers, the pollution profile of the aquaculture sector remains obscured from view.

Sea cage aquaculture is the largest industrial contributor of pollution discharges to the marine environment in Spencer Gulf by tonnage. This region is where the bulk of the industry is presently concentrated in South Australia. In 2013 it was reported in the Spencer Gulf Port Link Environmental Impact Statement that the Southern Bluefin Tuna industry was responsible for approximately 1,946 tonnes of nitrogenous nutrients to the marine environment per annum. Kingfish seacage aquaculture contributed an additional 734 tonnes in the same gulf system. For the sake of comparison, the combined discharges from the gulf's four major population centres' wastewater treatment plans totals 53.4 tonnes, representing a population of approximately 62,000 people. The mandatory reporting threshold for nitrogen discharges to water to the National Pollution Industry is ten tonnes per annum- a figure the tuna ranching industry exceeds by over 194 times.

Minister Gago's decision to vote to support the interests of primary industries, and against the interests of the environment and those who work to preserve it, is in my opinion, indicative of the position of the State government in general, and its attitude towards the aquaculture sector. I am including this example for the purposes of warning the Federal environment department that an assessment report prepared by PIRSA, an enabler and supporter of aquaculture activity, should not be considered to be a genuinely objective assessment and therefore should not be considered exhaustive or adequate for the purposes of Federal conservation assessment.

I understand that until last year, the South Australian EPA only considered the impact of nutrient pollution on seagrass health. This proposal intends to locate a pen above shelving reef and macroalgae a substrate and ecological community not (to my knowledge) previously subjected directly to aquaculture effluent elsewhere in South Australia. This proposal is essentially an experiment, and if it is to be approved and undertaken, should occur with strict monitoring in place and public disclosure of the operation's environmental performance. This is all the more important given that once operational, the lease area surrounding the pen will become an exclusion zone.

Information on the environmental performance of aquaculture operations in South Australia is difficult to obtain, with monitoring reports and other relevant studies frequently held under the auspices of commercial confidentiality. This brings me to this EPBC Referral. Why is it that Attachment 3, referred to in the principle document is not provided for public consideration and comment? Was this withheld at the request of the proponent, PIRSA or the South Australian government? Or was it an administration error?

Regardless, it is my opinion that any new or expanding aquaculture activities in South Australian waters should be referred to the EPBC Act as a matter of standard approval-seeking practise. As this submission will argue, interactions between sea cages and threatened and protected species are common and understood, but poorly documented in South Australia. It is critical to understand that absence of proof and proof of absence are not the same- and a lack of reports made to PIRSA may not be an accurate indication of the frequency, nature or extend of interactions with EPBC Act listed threatened species.

PROTECTED AREA STATUS & TERRESTRIAL CONSIDERATIONS

Granite Island is an IUCN Category IV protected area, designated for the primary purpose of maintaining, conserving and restoring species and habitats. It is a "protected area managed mainly for conservation through management intervention." <https://www.environment.gov.au/node/20957> The most widely known and celebrated resident on Granite Island is its famous colony of Little penguins (*Eudyptula minor*). The colony has declined dramatically from 1,548 penguins in 2001 to just 38 in 2013. Despite this, the State government has ignored recommendations made in 2011 that the status of the species in South Australia, or at least that of the Gulf St Vincent population be reviewed and considered for listing as 'Vulnerable' under state legislation. (Weibken 2011) I realise that this species is not listed under the EPBC Act, but am including it in my response as the population is of significant conservation concern to local residents and environmentalists, and have not been acknowledged by the applicant in their principle referral document.

It is my opinion that the proponent has not given their obligations to safeguard the terrestrial environment on Granite Island due consideration, and the lack of provision of an EPBC Protected Matters Search report or other terrestrial biodiversity data supports my claim.

TIMEFRAME

The proponent intends "to locate the sea-caged pontoon on the site by 1 December 2015 and commence stocking and feeding operations shortly thereafter." The proponent also provides no alternative timeframes or activities. While it would no doubt be in the commercial interest of Oceanic Victor to start trading in December 2015, should this action be deemed a "Controlled Action" the proponents would be required to prepare relevant studies and management plans, which would likely lead to a delayed commencement of trading. I believe it is misleading for the proponent to suggest that a later start date for their proposal is not possible, as inferred by the proponent in response to section 1.10.

IS IT PART OF A LARGER ACTION?

In my opinion the Environment Department should query the proponent's assertion that the proposed action is not part of a larger action. The proponent has mentioned in this referral and also in a previous approval application to South Australia's Development Assessment Commission that "part of the proposed site overlaps a proposed Department of Planning, Transport and Infrastructure (DPTI) cruise ship anchorage."

It is my understanding that cruise ship visitation to Encounter Bay, should it proceed, will be an entirely new activity. If the mooring point is established, cruise ships may shuttle passengers by tender nearest landfall at Granite Island. The establishment of this mooring point may be at the request of Oceanic Victor, or otherwise directly serve their business interests and is therefore deserving of further investigation.

If the current proposal is re-scoped to include customers delivered by tender from a cruise ship mooring point (as part of a larger action) further environmental impacts would need to be considered. These should in my opinion include consideration of the channel/course by which the cruise ships approach the proposed mooring point and the transit of cruise ship passengers to and from Granite Island. Such activity will be an entirely new action for the Encounter Bay area, and may result in further interactions between vessels and threatened species listed under the EPBC Act. Potential impacts include acoustic pollution from motors and potential ship strike (both likely to impact cetaceans), cruise ship effluent disposal (which may influence great white shark visitation and behaviour) and seabed disturbance.

ALTERNATIVES TO TAKING THE PROPOSED ACTION

The proponent suggests that there are no alternatives to undertaking this action.

This is absurd in my opinion, if the objectives of the operation, and those of the Marine Park in which it is to be located are considered. As the proponent has acknowledged "the Encounter Bay Marine Park Management Plan seeks to provide opportunities for public appreciation, understanding and enjoyment of the marine park; creating and promoting opportunities for sustainable nature-based tourism in the marine park and working co-operatively with Aboriginal communities to conserve country, plants, animals and culture. These objectives will effectively be supported by the proposed activity, as visitors have the opportunity to gain a deeper understanding of local marine life through a closer viewing than might otherwise be experienced, all within a safe, controlled and sustainable environment."

I contest that educational and entertainment opportunities exist for people to engage with the marine environment without the need to enter it and hand-feed captive fish. A permanent structure that does not contain captive animals such as those present at Busselton Jetty, Western Australia and Milford Sound, New Zealand could eliminate the environmental impacts which accompany keeping fish in captivity, and the complexity of managing their health and welfare and those of wild species at risk of entanglement. Structures at Busselton and Milford Sound also do not feature any netting or other entanglement risks which are unique to the infrastructure used by sea cage aquaculture. I would

recommend that this be considered by the proponent as an alternative, given the sensitivity of the chosen location (within a habitat protection zone, with a State marine park and in a region frequented by Southern right whale cows and calves).

The proponent states that "the proposed action has been the subject of a comprehensive assessment by the Government of South Australia in accordance with the Aquaculture Act 2001 (SA). This assessment concluded that the proposed action meets the 'ecological sustainable development' objectives of the Aquaculture Act 2001." While this may be true, I wish to repeat the concern I expressed in my submission made earlier this year to PIRSA regarding Oceanic Victor's proposal. No hydrodynamic modelling studies appear to have been conducted to demonstrate that the circulation and flushing time of the bay is adequate to avoid harm to the environment.

If a habitat protection zone in a South Australian Marine Park allows "activities and uses that do not harm habitats of the functioning of ecosystems" I contest that this activity can not be safely assumed to meet these criteria, given the lack of hydrodynamic modelling provided by PIRSA or Oceanic Victor in support of this claim. Siting the pen over shelving reef and macroalgae rather than over typical sandy bottom and sparse seagrass is evidence of further experimentation, with no guarantee of avoiding harm to the benthic habitat or ecology.

CONFLICT WITH OBJECTIVES OF MARINE PARK ZONING

This referral states that "any impacts to biota in the immediate vicinity of the cage structure are expected to recover rapidly when the cage system is moved (to allow for fallowing) or should it be removed at a future date. Further, the report noted that there is not expected to be any impact that extends beyond the lease area to surrounding habitats."

This statement acknowledges that the facility will have an impact on the marine environment, which brings it into conflict with the purposes of a Habitat Protection Zone, within a state-managed Marine Park.

"A similar aquaculture tourism operation has been in operation near Port Lincoln since January 2011, during which time no interactions with protected marine vertebrates, sharks and seabirds have been reported to PIRSA, although they are known to frequent the waters of Port Lincoln."

The absence of proof is not proof of absence. Given the town of Port Lincoln's economic interest in southern bluefin tuna industry at large, and the State government's publicly expressed desire to facilitate the expansion of the industry, it is possible that interactions with threatened species have gone unreported.

POSSIBLE INTERACTIONS WITH EPBC ACT LISTED THREATENED SPECIES

Here are some relevant examples of threatened or protected species interactions, as referred to by the aquaculture industry generally, or at relevant sites in other jurisdictions:

Sea eagle interactions with sea cages:

- <http://eprints.utas.edu.au/13760/1/1991-pemberton-predators.pdf>
- <http://www.abc.net.au/news/2014-06-16/fish-farmer-funds-20000-dollar-aviary-for-injured-eagles/5527718>

Great white shark interactions with sea cages:

- <http://www.abc.net.au/pm/content/2003/s887321.htm>
- <http://yalikedags.southernfriedscience.com/wolves-at-the-door-shark-interactions-with-aquaculture/>
- <http://www.ccpo.odu.edu/~chris/cc/gw.htm> & <http://triggspot.com/australian-diver-attacks-kills-massive-great-white-shark-waters-mexico/>

Pinniped interactions with sea cages:

(excerpt from *Seal culling in South Australia* article from Wikipedia)

"The southern bluefin tuna ranching industry reported increasing interactions with fur seals in the 2010s. Marcus Stehr, son of [Hagen Stehr](#) and executive of the Stehr Group told *The Advertiser* in 2012 that fur seal interactions were costing their southern bluefin tuna ranching aquaculture business "at least \$1 million" annually. He stated:

"Seals cost the entire industry millions of dollars every year and we do need support from the State Government to look at how we manage them. In SA we have failed to develop any strategies to manage growing seal numbers and it's vital that this begins." [20]

In 2013 [Brian Jeffriess](#) told *The Advertiser*:

"Attacks by seals are a major problem for tuna ranching. They are the largest cause of tuna deaths in the pontoons and frighten the other tuna so they do not eat for days."^[21]

[20]"Kangaroo Island may cull New Zealand fur seals to save penguins". Retrieved 2015-07-08.

[21]"[*Fur seals devastating marine eco-system*](#)". Retrieved 2015-07-09.

Southern and Atlantic right whale entanglement incidents (in fishing gear, netting):

- <http://mlssa.org.au/2001/12/07/entangled-southern-right-whale-dies-in-head-of-bight-whale-sanctuary/>
- <http://www.whyllanewsonline.com.au/story/3054767/life-under-water/>
- <http://www.iucnredlist.org/details/41712/0> (note fishing gear entanglement and ship strike at major threats)
- IUCN's Red List of threatened species states of Southern right whales that the species is "subject to mortality due to entanglements in fishing gear and collisions with shipping (IWC 2001)."
- <http://www.hermanuswhalewatching.com/southern-right-whale-trapped-in-fishing-line/> (note that this article refers to Eubalaena, but possible the North Atlantic right whale, rather than southern).

Finally, I wish to draw your attention to the sighting logs of the SA Whale Centre, which provide some indication of the occurrence of Southern right whales in the vicinity of the proposal's location. It is also worth noting than an unknown quantity of further sightings are likely to have gone unreported, due to a lack of public awareness surrounding the importance of reporting whale sightings to the SA Whale Centre.

<http://www.sawhalecentre.com/whale-sightings/sightings-log/>

Further incidence of threatened and protected species, including migratory birds such as the Shapr-tailed sand piper and red-necked stint which may be impacted should Oceanic Victor increase the abundance of silver gulls or other scavenger species in the vicinity via the poor management of human garbage. The following link includes species occurrence within a 5km radius around Granite Island. In addition to aforementioned species, records of Australian sea-lions, humpback whales and various petrels and albatross are also worth considering in light of their EPBC Act listings.

http://biocache.ala.org.au/explore/your-area#-35.5640858|138.6307435|12|ALL_SPECIES

CONCLUSION

It is my opinion, that despite the proposed project's size, the sensitivity of the chosen location, the operation's experimental nature (relative to benthic habitat and hydrodynamic uncertainties) and high incidence of threatened and protected species should make it a candidate for a "Controlled Action" determination. The proposal may also require rescoping to include actions involving cruise ships, pending further investigation.

Yours sincerely,

Dan Monceaux
3/15 Myall Ave
Kensington Gardens
South Australia 5068

From: s47F
To: [EPBC Referrals](#)
Subject: referral no 2015/7592
Date: Tuesday, 10 November 2015 4:19:48 PM

EPBC SUBMISSION on Referral 2015/5792 Oceanic Victor

By s47F

As a surfer, ocean swimmer, south coast resident, citizen scientist, beach guardian and marine conservationist I have major concerns on many levels about this proposal and how it has been fast tracked by the South Australian state government.

It would seem that after the rejection of the Kangaroo Island community to its previous location proposal, and subsequent withdrawal by the proponents that they have now set their sights on Granite Island, off Victor Harbor and situated in the Encounter Marine Park, its ecosystem health already under duress.

My concerns are in regards to:

Southern Bluefin Tuna

Southern Bluefin tuna are classified as 'critically endangered' on the IUCN's Red List of threatened species. It 'faces an extremely high risk of extinction in the wild'. Population levels are down to around 5% of original levels, yet fishing continues.

Southern Bluefins are managed by a collaboration of nations and because of their vast migration route, different countries pick off the fish as they come within reach of a coastline. The Commission for the Conservation of Southern Bluefin Tuna (CCSBT) allocates what each nation can take from the stock, and Australia currently has access to around 4,200 tonnes of fish per year.

If under Australian regulation and legislation, there would be no targeted fishery, however, as it's managed by an external authority, Australia profits handsomely from fishing for a species on the brink of extinction.

The overwhelming majority (more than 95% of those caught) are fished as juveniles in the Great Australian Bight before being fattened up in sea cages and exported to Japan. Targeting large numbers of juvenile, pre-spawning fish means flat-lining the possibility of re-building the stock. Any further depletion of the stock for the purpose of entertainment is repugnant.

The management of the SBT in the pen is also cruel to the extent that they are not fed to satiation to keep them hungry for an active and 'entertaining' feeding time. In this frenzy they bash themselves against the pen walls and each other in competition for food which can lead to damaged eyes, blindness, starvation and death. This in itself is wrong and no way to treat any animal let alone a species that are critically low in numbers. At least up to 15 fish have died in this manner reducing the stock 25% from 60 to 15, an unsustainable population factor. I am unsure as to over what time frame this was in but I have raised this for further investigation with the RSPCA SA and the Department of Fisheries SA.

SBT in captivity are caught from the wild stock. As they die are more juveniles being taken from the endangered wild population to replenish them? A mortality register should be made available and every death and its cause be investigated.

Southern Right Whales

Southern Right Whale was fished to near extinction off the waters of the Southern Fleurieu in the 19th and 20th centuries, in fact the first settlement of South Australia was founded on the Whaling industry. The southern right whale was protected in Australian waters in 1935, after more than 26 000 individuals had been taken in Australian and New Zealand waters between 1822 and 1930. Only in the past few decades have the whales returned once again to mate, birth and nurse and once again has the region turned this asset into a unique and valued industry, this time nature based and eco-tourism.

The safe, clean and tranquil waters are ideal for the adult whales to inhabit each winter and any threat to that would be damaging to both the whales, the whale watching industry and to the local community. They seem to come in 3 year cycles...the third year with many sightings and many whales, the other 2 years can be much less.

You can visit the South Australian Whales Centre Sightings log to see the recorded sightings. <http://www.sawhalecentre.com/whale-sightings/sightings-log/>

As a surfer who principally surfs at Middleton Beach, I am aware that many more sightings actually occur that are not recorded on this log.

The attached images were taken this year 2015 from close to the Victor Harbor Yacht Club. Even though the whale numbers were not great this year, this Mother gave birth in the deeper waters probably around Basham's Beach area and then guided her calf into the calmer and quieter area between the breakwater and the yacht club and sheltered with her newborn there for over a week, swimming up and down the length of the bay. A 24 hour generator running, boats toing and froing, a pen full of fish and other potential predators looking for food roaming in the area would be definitely make this area one to avoid for a protective mother Southern Right whale.

Great White Sharks

The GW sharks are definitely already in the region but in all my years of ocean using I have never seen one in the wild. I seldom surf west of Victor due to GW shark sightings yet have seen school, bronze whalers and grey nurse sharks in and around the surf spots east of Victor Harbor.

With GW shark populations growing due to protection and the consequent competition for diminishing food sources a stationary structure such as this would undoubtedly attract more sharks to the region in search of food. Once they realise they cannot get at the fish (or get entangled in the attempt) they will move on looking for other sources.

With the Yacht Club adjacent, Boomer Beach a spot for short boarders, Knights Beach for Body Boarders and Horseshoe Bay popular with Ocean swimmers this is not only a danger for the ocean users but also for the potential negative backlash if an attack or fatality occurs. Emotive cull calls etc only further the bad press for the GW. Shark entanglement is commonly heard of in Port Lincoln amongst the staff of tuna farms although it is also commonly known that these entanglements often go unreported, with threats of job loss etc.

Also any explosion of the population in our region due to the attraction of the Tuna Pen would only encourage Shark Cage diving industries to the area that could also create potential dangers to the respectful coexistence between mankind and the GW in our region.

Razorfish

Our region sits in the Encounter Marine Park. This proposal will sit in the sheltered bay

between the breakwater and the causeway that leads to Granite Island from the mainland and above approx. 10 m of water and, as I been informed by local diver Steven Wright, a Razorfish Bed.

Razorfish stocks in South Australia have declined dramatically over the past years due to overfishing. 'A decade ago, razor fish could be found in numbers right along metropolitan coasts (in suitable habitat) as they were used by only a few fishermen as bait. Now, however, some areas are totally devoid of them now and this is due to the fact that their potential as an extremely tasty seafood dish has been realized'.

Deaf Ears

It would seem that the voice of the community is falling on deaf ears. Those of us who use and care for the coastline and ocean in our region are talking in defense but not being heard as we watch the proponents confidently pack up operation in Port Lincoln and announce they are moving to Victor.

This cannot be rushed, the custodial Ramindjeri people are against it. Proper risk assessment and an extensive Management Plan and Business Plan is crucial to the process and any approvals given by the goverment at any level and all levels.

With a bumper season due for whales in 2016 it would be extremely shortsighted to rush this venture through and damage what we already have and value.

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Kind regards,
s47F

s47F

Morning Grass Management
Arts, Events & Tours

s47F

<https://www.facebook.com/MORNINGGRASS>

s47F

Morning Grass endeavours to ensure access to a full range of arts and cultural experiences which enrich people's lives, contribute to their well being and contribute to the growth of sustainable South Australian communities.



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PHOTOGRAFFIX





s22

Email: xxx@xxxxxxxxxxx.xxx.xx

Community Information Unit,
EPBC,

To whom it may concern'

Please could you forward this email response to an EPBC Referral, together with the attachments, to the relevant parties.

Thank you,

Greg Hunt MP,
Minister for the Environment,
Parliament House,
Canberra,
ACT

Dear Minister,

Please find attached our response to EPBC Referral 2015/7592 By Oceanic Victor Pty. Ltd. To conduct a tourism/aquaculture venture in Encounter Bay, South Australia. We have also included with our response to the referral a copy of our submission to PIRSA regarding this matter which we have previously forwarded to your office. That document is a much broader scoping document requested by entities in Victor Harbor concerned about this proposal. Our response to the referral is specific to the situation faced by Southern Right Whales who have a nursery area in close proximity to the site of the proposal.

Thank you for your consideration in this matter and please do not hesitate to contact us if you require further information or clarification.

Yours sincerely,

s47F

KI/VH Dolphin Watch
WDC



Kangaroo Island Dolphin Watch

in partnership with

Whale and Dolphin Conservation

PO Box 30 American River, Kangaroo Island, South Australia 5221

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Mr s47F,

Case Manager, Aquaculture Environment Program,
PIRSA Fisheries and Aquaculture Division,
Level 14 25 Grenfell Street, GPO Box 1625,
Adelaide SA 5002

July 20th 2015

Oceanic Victor Pty Ltd

New Marine Aquaculture Pilot Lease LA00358 and Licence AQ00315 Application

We are writing to express our opposition to the placement of the “Oceanic Victor” Swim with Fish pontoon in the waters off Granite Island in the Encounter Marine Park. We believe this proposal if sited in these waters could cause damage to the local marine environment by degrading the habitat and impact upon the local economy in negative ways.

Our concerns are outlined below:

1. Water Quality

We understand the waters concerned to already have some issues with respect to water quality due to nutrient outfalls from the local rivers flowing into Encounter Bay. This situation could be exacerbated by this proposal with nitrogen loadings in particular being a factor. Only a small fraction, between 7 and 12% of feed inputs to tuna are retained for

growth, the rest is deposited in the water column. In the *Aquafin CRC Final Report* of May 2007 on page 191 it is stated:

“76-86% of the nitrogen feed inputs is released directly into the water column in dissolved form.”

Combine this with the following statement from page 178 of the same document:

“The observations presented are likely to have wider implications for environmental management of fish farms because they point to the fact that the carbon contributions from fish farms are not necessarily retained locally, but may be rapidly transported away and assimilated elsewhere in the ecosystem with possible regional effects.”

This is of enormous concern with the possibilities of eutrophication, consequent seagrass loss and a degenerated habitat resulting.

The proponents have suggested through their *Biogeographical Report* commissioned from Anthony Cheshire that they will ameliorate these impacts through using fallowing methods, adjusting the numbers of fish kept and hand feeding only. This may minimise waste generated to some extent but it will not eliminate it entirely nor will it address this issue raised above - the spread of the waste impacts.

Following discussions with the EPA we are assured there will be minimal impact upon benthic communities if the feeding regimes and stocking rates suggested by the proponents and outlined in the **Cheshire Report** are followed, particularly as the site has been adjusted to allow greater water movement and flushing effects. Given the above this may not be quite as efficacious as expected.

High rates of waste deposition in the sediments below cages can lead to accumulation of organic matter in the sediment which, when overwhelms the assimilative capacity of the sediment, can result in the formation of anaerobic bacterial mats and anoxic conditions (Chen et al., 2000). Extreme anaerobic conditions give rise to the production of hydrogen sulfide and methane. Such conditions are known to affect both the fish farm and the environment with alteration in the sediment quality and benthic community structure. Page 54

However, cage aquaculture provides a potential source of eutrophication and nutrient loadings in eco system. Feeding of caged fish has been identified as the most important source of nutrients. The nutrient impact of fish farming on surrounding coastal and sea areas is mainly a function of the feed wastage and feed coefficient, the feed composition and metabolic processes in the fish and, therefore, should be considered for sustainable management. Nutrient budget for a hypothesized cage farm shows that as high as 81.5% N and 85.7%P are released into the environment for each ton of fish produced and only 18.5% N and 14.3% P are harvested as biomass.

Moreover the level of nutrient loadings would be several orders of magnitude higher in areas where live feed such as trash fish is used. Therefore large scale horizontal expansion and intensification of cage aquaculture needs to be critically reviewed and attended and to be sustainable, it is vital that production processes use the natural resources wisely and not exceeding the carrying capacity of the environment. Page 58

Reference: Nitrogen and phosphorus budget in coastal and marine cage aquaculture and impacts of effluent loading on ecosystem: review and analysis towards model development. Md Shahidul Islam Division of Applied Biosciences, Faculty of Fisheries, Graduate School of Aquaculture, Kyoto University, Kyoto 606-8502 Japan

We also note the warnings given by leading researchers in this area like Victoria Diaz in the abstract of her paper *Polychaete Fauna in the Vicinity of Bluefin Tuna Sea-cages in Ensenada, Baja California, Mexico*

“Seacage farming results in a rain of organic matter onto the underlying benthos. There is growing concern over the effects of tuna sea-cages on the local sediment chemistry and benthic communities.”

Perhaps we should be heeding such warnings and employ the **precautionary principle** in light of uncertainty regarding the possible impacts.

2. Attraction of Predators

Any fish aggregation will attract predators. This will include endangered species like Australian sealions *Neophoca cinerea*, Longnosed fur seals *Arctocephalus forsteri*, Southern Right Whales *Eubalaena australis*, and migratory species like Humpback Whales *Megaptera novaeangliae*, Bottlenose dolphins *Tursiops sp.* and Common dolphins *Delphinus delphis* and sharks, especially Great White sharks *Carcharodon carcharias*. In each case there is potential for entanglements in the infrastructure of the pontoon and in the case of sharks, there is the added danger they offer to swimmers, sailors, surfers and those enjoying boating activities in this highly popular area for recreational aquatic pursuits. As the economy of the region is based largely around the beach / surfing culture, the deterrent value of potential shark attacks could have major impacts upon local businesses and livelihoods.



A doyen of the tuna industry has admitted that sharks are attracted to tuna cages.

Port Lincoln tuna baron Hagen Stehr says shark culling is a must

February 7th 2014 Nigel Austin: Rural Editor, The Advertiser

One of the wealthiest men in South Australia, Mr Stehr is chairman of the Australian Maritime & Fisheries Academy and controls a tuna empire that farms 600 tonnes of tuna each year and has a fleet of nine vessels. Mr Stehr said tuna farming did attract some sharks, but he believes a lack of control measures that has led to the build-up in numbers.

And further, a recognised shark authority Barry Bruce;

A CSIRO shark expert, Barry Bruce, said the site was near a nursery area for white sharks and shark activity was already high. The presence of fish and fish meal could entice sharks, which "can be conditioned to stay around that source of attraction for periods longer than they would otherwise", Dr Bruce said.

<http://www.smh.com.au/environment/animals/fears-fish-farm-could-cause-shark-and-pollution-problems-dismissed-20130123-2d7i9.html#ixzz3gEewRPy5> [Food & Water Watch](#) > [Common Resources](#) > [Fish](#) > [Factory Fish Farming](#) > [Offshore Fish Farms](#)

Sharks and Fish Farms: A Deadly Attraction

Danger lurks beneath the sparkling waters of Hawaii. A new type of industrialized fish farming called "offshore aquaculture" may be attracting sharks closer to shore, where surfers and swimmers abound. Locals wonder, with shark attacks on the rise, five were reported in Hawaii in 2005, is there a connection?

Offshore aquaculture involves cramming hundreds of thousands of fish into gigantic submerged nets or cages. Feed and excrement draw sharks, which smell food from more than a mile away. A frenzy can result, with sharks tearing through nets for a ready-to-eat meal.

Sharks already congregate around the nation, first commercial offshore fish farm, anchored two miles off of Oahu, Ewa Beach in Hawaii. Cates International Inc. wants to add 12 cages to its current four, and triple annual production capacity to 4 million pounds of fish.¹ Owner Randy Cates admits his cages serve as bait. "Will they attract sharks? Yes, they will."² The sandbar shark is the main predator and has been blamed for five attacks worldwide, according to the International Shark Attack Files at the University of Florida.

The National Oceanic and Atmospheric Administration, which is carrying water for the Bush administration, campaign to expand aquaculture, has made a similar confession. The agency acknowledges increased shark activity at deep-sea fish farms it manages in both New Hampshire and Puerto Rico.³

The Pinnipeds in particular have a long history of interactions with structures such as that proposed and considering their status as endangered species in this instance, it seems rather problematic that they should be exposed to potentially damaging proposals which could have negative impacts upon both individuals and, by default, the population.

We have recorded Bottlenose dolphins feeding, resting, mating and travelling in the area proposed for this development on many occasions and it is obviously a part of their migratory pathway. Diminishing their habitat through removal of a preferred site could impact negatively upon them, particularly given the possible changes in abundance of prey species due to ocean acidification, sea surface temperature rises and other climate change implications.



Bottlenose dolphins regularly observed on surveys in the targeted area over 61 surveys between April 2011 and June 2015
NB Significant dorsal fin damage / body marks already evident on many catalogued dolphins – some clearly from boat strike



Common dolphins regularly observed on surveys in the targeted area over 61 surveys between April 2011 and June 2015



Longnosed fur seals are frequently observed and occasionally Australian sealions, on surveys in the targeted area over 61 2011 - 2015 surveys. Bottlenose and Common dolphins are also regularly observed feeding in the targeted Granite Island region.

The possible impacts on these endangered and migratory species require the proponents to make a referral to the EPBC under the Environmental Protection and Biodiversity Conservation Act 1999.

This especially relates to endangered Southern Right Whales who will be dealt with in a separate section of this document.

3. Biosecurity Issues

There is also emerging evidence that constant noise through the running of generators etc in the marine environment could act as a powerful attractive force for invasive species as the following article demonstrates.

Noisy boats help spread invasive pests

July 7th 2014 Christopher Doyle ABC



By turning off their generators when docked, vessels could reduce their attractiveness to fouling organisms, say researchers (Source: Lee Rogers/iStockphoto)

Biosecurity risk increasing noise pollution in harbours and ports may contribute to the global spread of invasive pest species, research has found. Invasive species often spread through marine environments when they attach themselves to the hulls of boats and ships in a process known as biofouling.

Now scientists from Australia and New Zealand have discovered that the noise a vessel makes can actually attract the larvae of these fouling species.

"There are a range of things that make vessels attractive to the larvae of these organisms, but now we have proven sound is an important cue as well." says Dr Justin McDonald from the [Western Australian Department of Fisheries](#) and lead author of the study.

"A lot of boats come in and they keep their generators running for air conditioners and refrigerators. That generator noise can actually attract larvae from nearby." he says.

To study how noise influences biofouling, McDonald and his colleagues from the National Institute of Water and Atmospheric Research and the University of Auckland used a hydrophone to record the noise emitted from fishing vessels while they were berthed in Fremantle, Western Australia.

They also made visual inspections of the vessels to see how the level of fouling varied across different sections of each boat. The scientists found that the greatest number of fouling organisms were located closest

to the generator, where the most noise occurred. The quietest part of the vessel, the bow, had the least number of fouling organisms. The results are reported in the journal [Biofouling](#).

McDonald says the noise levels from the generators were similar to that found naturally on reefs, suggesting that the organisms may be orientating towards the vessel noise in search of a suitable place to live.

"If the larvae are attracted to natural reefs and the noise levels are the same, then they may perceive the vessel as essentially just another reef." he says.

Enhancing growth

Given the distance with which vessel noise penetrates through the water, McDonald says organisms may be attracted from up to 500 metres away. But the noise is doing more than just attracting fouling organisms - it is also enhancing their growth.

In a separate experiment McDonald and his colleagues exposed the larvae of a common fouling organism, the sea squirt *Ciona intestinalis*, to sound recordings they had made of vessel noise. They found the noise made the larvae settle faster, develop more rapidly and increase their survival.

This is the first time a response to an auditory cue has been recorded for a sea squirt.

McDonald says vessels could reduce their attractiveness to fouling organisms by simply switching off their generators and using land-based power when docked, or by dampening the level of noise their generators make. But ultimately he and his colleagues are hoping to find a way to use the auditory sensitivity of these organisms against them.

"We might be able to find a frequency that can actually be used to repel the larvae so we don't have the problem in the first place." he says. Tags: [conservation](#), [marine-biology](#)

The proponents have not addressed this threat to the ecology of the region in any of their documentation and yet biosecurity is a government imperative of the highest order.

4. Anthropogenic Noise

Since the studies by Rolland et al. in the Bay of Fundy following the September 9/11 attacks when shipping ceased for a time, we have understood more about the marked impacts of vessel noise on cetacean communities and the largely unseen and little understood consequences of all forms of anthropogenic noise have become an area of intense scientific interest and endeavour, as a conservation imperative. The work of Peter Tyack, Bob D'Iorio and Chris Clark, Kristin Westdal, Rob McCauley, Christine Erbe, Jim Cummings, Lars Bejder, Amy Samuels and others has highlighted the danger of increasing noise levels, particularly in areas of high biological significance.

In relation to Southern Right Whales, particularly those in the South Eastern population, the area in close proximity to the proposed Oceanic Victor site is of extreme importance as a nursery area. Any interference in this area is likely to have major impacts at both an individual and population level. If the mothers and calves are not completely rested and prepared for their journey South, the results can potentially be catastrophic.

This proposal, with its obvious potential for interference, appears to "fly in the face" of the mitigation strategies proposed under the **Conservation Management Plan for the Southern Right Whale 2011 – 2021**, especially given the increase in noise which regular boating traffic and the pontoon itself will generate in this area. The potential for entanglement and the attraction of sharks to the area also presents considerable potential for stressors to impact upon the resting mothers and calves.

This is particularly pertinent given the following from the **Conservation Management Plan**:

“Southern Right Whales in south-western Australia appear to be increasing at the maximum biological rate but there is limited evidence of increase in south-eastern Australian waters. Until recently, southern right whales in Australia were considered to be one population. Preliminary data suggest that south-eastern and south-western Australian right whales may represent distinct matrilineal genetic stocks. This idea is supported by their differential recovery rates. The two Australian Southern Right Whale populations differ from other populations on mtDNA haplotype frequencies, although nuclear genes show little differentiation between Australian and New Zealand populations.”

Given these facts, that the South Eastern population, which includes the animals visiting Victor Harbor and the Encounter Bay region, are well below a specified recovery rate and even possibly in decline, there is an obvious imperative to carefully weigh up any and all developments which could impinge upon their recovery.

It is worth noting that they are not without importance in the conventional economic sense in that they are the centrepiece attraction of a whale watching industry in the region which has generated revenue of \$9 million according to South Australian Tourism Commission figures.

It begs the question should this be put at risk for the profit of the few, at the expense of the many?

All that apart, the status of Southern Right Whales as an endangered species demands the proponents make a referral to the EPBC.



A very special Southern Right Whale close encounter at the Screwpile Jetty, Granite Island: a Female recorded at Victor Harbor 3 times in recent years as well as the Great Australian Bight area. Aug. 3rd 2012 – in the proposed aquaculture area

NB. This Dolphin Watch footage so fortunately capturing a magnificent whale watch experience has been included in a DEWNR promotional video of the Marine Parks – a magical experience in the Victor Harbor region to be treasured.

5. Economic Viability

We have grave doubts about the medium and long term viability of this project. The political landscape with respect to keeping animals in captivity is changing rapidly throughout the world. The “Blackfish” documentary phenomenon is a case in point where Seaworld’s very viability is being severely threatened because of a change in perception and attitudes towards their enterprise. This is symptomatic of a changing morality globally. Coupled with the second example of WAZA forcing JAZA to change its policies in relation to keeping cetaceans in captivity, and taking into account Southern Blue Fin Tuna are an endangered species, it is quite conceivable this could be a likely scenario for Oceanic Victor. It will only need for HSI, WWF, NRDC, IFAW and other major players in the conservation movement to be alerted and become involved and the economic bottom line could change remarkably.

It also begs questions:

- Is this really something that the people of Victor Harbor wish to link themselves to?
- Why are Government agencies with environmental protection roles so focussed on promotion of this enterprise?

- Are they simply trying to offset negative press generated with respect to the introduction of Marine Parks and are so determined to present positive possibilities that they are clutching at straws through this proposal?
- Do the political imperatives around the perceived decline in the State's economy and related job prospects make jumping at any proposal with a seemingly positive spin, a viable option for creating positive press?

The whole concept of Marine Parks and their purpose appears to have been compromised in the support of this proposal. The idea of a habitat damaging proposal in a declared **Habitat Protection Zone** seems anachronistic to say the least and highly counterproductive in the extreme.

There is also the potential, with changing perceptions and attitudes in a changing political climate, for the proponents to find themselves charged under the provisions of the **Marine Mammals Interaction Policy** in the case of entanglements or similar. Under public pressure the levying of major penalties, up to \$100 000 per instance, could dramatically affect this proposal's potential profit margins.

The proposal is presented as one which will have minimal impacts on the environment and will have only positive impacts upon the economy. Nothing could be further from the truth. This is not a benign project and could have seriously damaging consequences at many levels.

6. Potential Loss

Much of Victor Harbor's economic strength lies in its whaling heritage, the change from whaling to whale watching and how this is presented to the world. It provides a perfect foil during the part of the year when the weather does not allow for the regular surf / beach culture to attract the usual numbers of visitors. This aspect of Victor's cultural heritage can be built on and expanded to provide even greater economic benefit for the community if it is not impacted upon by inappropriate, possibly damaging developments.

The potential for growth in the eco-tourism, research tourism sector is enormous as the following excerpts from John Newton's book *A Savage History – Whaling in the Pacific and Southern Oceans* demonstrate.

“On 4 April 1979, Malcolm Fraser announced that the recommendations of the Frost Report be adopted and the Whaling Act of 1960 be repealed and replaced. Today, Albany sees around 600 000 tourists a year. Their main activity is whale watching. They spend approximately \$171 million a year, considerably more than the \$300 000 to \$500 000 a year income generated from killing whales in the last years of Cheynes Beach.”

And on a more global scale:

“It was estimated by cetacean expert and author Erich Hoyt – who, in 1998, carried out the largest and most systematic study of whale watching yet undertaken – that whaling trips were available in 87 countries and that there had been 9 million whale watchers. His estimate for 2000 was for 11.3 million people spending \$1.475 billion dollars to watch whales, a five-fold increase in a decade. Current estimates are for a global income from whale watching in excess of \$2 billion a year.”

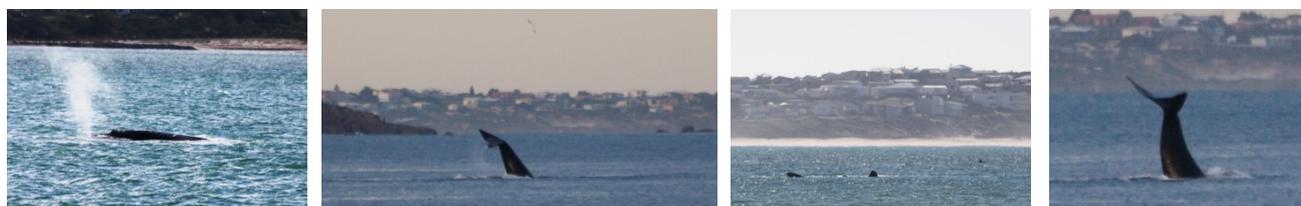
There is already a well established operator **The Big Duck Boat Tours** providing a world class experience which properly supported could realise this potential for Victor Harbor, building upon the region's existing identity. To place this at risk seems foolhardy in the extreme.

The critical element is the continuing presence of the whales and it is this which could be compromised by this proposal.

Around Australia the number of Humpbacks, with their inherent appeal, is increasing, at a rate of 11% according to some scientists, and this augurs well for the future, but sadly the mainstay of local whale watching, providing such brilliant land based sightings, are the Southern Right Whales and they are not in a state of recovery currently.



Humpback Whale - Female & Calf Granite Island region, Victor Harbor, SA July 2nd 2013 11.31am
Humpbacks sighted on occasions on surveys and frequently on landbased monitoring in the region, more so in recent seasons.



Southern Right Whales sighted regularly in the targeted area on surveys and landbased monitoring.

** Images: Kangaroo Island / Victor Harbor Dolphin Watch - South Australia*

The following passage from the [2012 Climate Change Report Card](#) says it all.

“Critical habitats are defined here, as those that are used for key life history events including breeding, giving birth, nursing young and migrating between feeding and breeding grounds, as well as important feeding areas.

Threats to marine mammals should be ranked and the most significant ones prioritised, focusing on manageable threats at the population level that lead directly to conservation gains. Critical habitats should be strategically managed for the protection of marine mammal populations, with an emphasis on maintaining high quality habitat.

Finally, acoustic pollution, including noise from vessels, industry and coastal developments and seismic activity for oil and gas exploration, may affect marine mammals, potentially causing them to abandon key habitats such as migration routes and breeding sites (Bannister et al. 1996). In the Southern Ocean, acoustic disturbance potentially disrupts swimming or feeding activities in whales which use sound for orientation, communication and to locate prey. While this typically occurs seasonally and along discrete shipping routes, data on impacts of noise pollution is lacking (Leaper and Miller 2011).”

Reference: Marine Climate Change in Australia - Impacts and Adaptation Responses 2012 REPORT CARD 353 Marine Mammals: Nicole Schumann¹, John. P. Y. Arnould¹, Nick Gales² and Robert Harcourt³ School of Life and Environmental Sciences, Deakin University, 221 Burwood Hwy, Burwood, VIC 3125, Australia, nsc@deakin.edu.au. 2Australian Antarctic Program, Australian Antarctic Division, 203 Channel Hwy, Kingston, TAS 7050, Australia 3Graduate School of the Environment, Macquarie University, Sydney NSW 2109, Australia, Schumann, N. et al. (2012) Marine Mammals. In Marine Climate Change Impacts and Adaptation Report Card for Australia 2012 (Eds. E.S. Poloczanska, A.J. Hobday, A.J. Richardson) www.oceanclimatechange.org.au ISBN: 978-0-643-10928-5

CONCLUSION:

It is simply too easy to see this as a simple solution to a very complex question. In effect the makeup of the major stakeholders have not changed ostensibly. DEWNR, VHC and a private operator looking to make fast profit is what currently exists and has brought the situation which Granite Island finds itself in. Changing Gunn's for Oceanic Victor is very likely to produce identical results in the foreseeable future, but with an unfortunate outcome. Victor Harbor could very well be stigmatised as a town which supported keeping animals in captivity for the amusement of humans, while forsaking a "Clean and Green" image and unique marine environment through risking destruction of protected habitat areas of extreme importance. Most people accept the concept of fish farming to provide a much needed protein source for feeding the world but this is not what is being contemplated or promoted by this enterprise.

Is this the face Victor Harbor wishes to present to the world?

What will this do to the existing Victor Harbor brand?

Acceptance of this proposal is fraught with danger. Nothing is ever as simple as it seems and this is a watershed moment for the people of the Victor Harbor region. How do they envisage their region looking forward and what do they want to see? They will indeed not make the decisions but they deserve their right to have their say as fully informed citizens and stakeholders.

Thankyou for your consideration.

Your sincerely,

s47F

Kangaroo Island / Victor Harbor Dolphin Watch Coordinator

Whale and Dolphin Conservation Project Officer

Charter Member, Ocean Geographic Society

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Kangaroo Island / Victor Harbor Dolphin Watch Volunteer

Charter Member, Ocean Geographic Societ



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Kangaroo Island / Victor Harbor Dolphin Watch

in partnership with

Whale and Dolphin Conservation

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November 10th 2015



Oceanic Victor Pty Ltd

EPBC Referral 2015 / 7592

Dear Minister Hunt,

The Oceanic Victor tourism proposal has been very diligently investigated by State Government agencies including PIRSA, EPA and DEWNR and it is to their credit that they have addressed so thoroughly public concerns raised through the public consultation process.

There is however one element which appears to have not received adequate consideration and thus requires further investigation regarding protection mechanisms under the EPBC Act 1999. The South Eastern population of the Southern Right Whales which visit the Encounter Bay region are not in a state of recovery,

specified as 7% by Bannister et al and as such is extremely vulnerable to any anthropogenic impacts, particularly those of a chronic nature as this proposal presents.

The following excerpts from the *Conservation Management Plan for the Southern Right Whale; A Recovery Plan under the Environment Protection and Biodiversity Conservation Act 1999 – 2011 > 2021*, attest to this and the need for an EPBC Referral in this situation.

Conservation Management Plan for the Southern Right Whale

“EPBC Act Referrals - ensuring that proposals are adequately assessed and reviewed and that appropriate measures are in place to mitigate any potential impacts on southern right whales from approved activities, including using the seismic guidelines.”

“Southern right whales generally occur within two kilometres off shore and tend to be distinctly clumped in aggregation areas.”

“Southern right whales in south-western Australia appear to be increasing at the maximum biological rate but there is limited evidence of increase in south-eastern Australian waters. Until recently, southern right whales in Australia were considered to be one population. Preliminary data suggest that south-eastern and south-western Australian right whales may represent distinct matrilineal genetic stocks. This idea is supported by their differential recovery rates. The two Australian southern right whale populations differ from other populations on mtDNA haplotype frequencies....”

“Southern right whales in Australia were until recently considered to be one population. It is now proposed that south-east Australian right whales are most likely a separate population from those in the south-west. Southern right whales in south-western Australia appear to be increasing at the maximum biological rate but there is little evidence of increase in south-eastern Australian waters. The 2011–2021 Conservation Management Plan is therefore based around the need to aid and monitor the recovery of two possibly separate populations.”

Spatial recovery

“Soviet whaling fleets are thought to have illegally taken over 3000 southern right whales in the 1960s, which is estimated to have removed more than half the remaining population and substantially delayed the recovery of the population. Habitat occupancy contracted substantially as a result of commercial whaling, and current Australian coastal distribution patterns are those of much depleted/remnant populations. Although southern right whales are tolerant of a wide range of environmental conditions, are highly mobile, are recorded throughout their former known coastal distribution, and can form successful breeding aggregations in a range of habitats, their strong site fidelity and social cues are likely to constrain their capacity to establish regular aggregations in new or previously used locations, even where apparently suitable habitat is available. So far, the increase in abundance has been reflected principally as an increase in whale numbers in already occupied aggregation areas in the south-west part of the range, although several additional areas are now emerging and may become established as known aggregation sites.”

“In terms of spatial recovery the south-west population is recovering moderately well – three large, well established calving areas exist and there is evidence of a number of smaller and emerging calving areas being more regularly, if variably, occupied. The south-east population, from Ceduna to Sydney, including Tasmania is not recovering well, with very low regular habitat occupancy, particularly when considered in relation to expectations from historical ecology. Adequate suitable habitat is likely to be available in both the south-east and south-west, and since social cues and memory are likely to play a role in spatial recovery, it will be important to ensure that spatial recovery is facilitated in that context.”

Specified Objectives in the Plan include the following:

1. *“The nature and degree of difference between the south-eastern and south-western Australian populations of Southern right whales is clearly understood*
2. *Current levels of legal and management protection for southern right whales are maintained or improved and an appropriate adaptive management regime is in place*

3. *Anthropogenic threats are demonstrably minimised.*”

It is Statement 3 which appears particularly pertinent in this situation.

“Given recent research has suggested that demographically-independent populations of southern right whales may occur off south-east and south-west Australia, the interim recovery objectives and the associated recovery actions are structured around a two-population model.”

The *Management Plan “Executive Summary”* also emphasises this point under “Recovery Objective”.

EXECUTIVE SUMMARY

Introduction

*“Southern right whales (*Eubalaena australis*) are currently listed as endangered under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act) because they have undergone a severe reduction in numbers as a result of commercial whaling. An initial recovery plan for southern right whales was developed for the period 2005 to 2010. A review of that plan found that despite progress on many recovery actions and evidence of some population increase in south-west Australian waters, southern right whale habitat occupancy is still constrained in comparison to historical occupancy, and current abundance is still well below estimated historic abundance. The review recommended an updated recovery plan for the southern right whale be developed to reflect new knowledge and prioritise research needed to monitor population recovery and better predict the impacts of threats such as climate change. This plan conforms to the International Whaling Commission’s (IWC) ‘Conservation Management Plan’ format, while meeting the requirements of a recovery plan under the EPBC Act.”*

Recovery Objective

“The long-term recovery objective is to minimise anthropogenic threats to allow the conservation status of the southern right whale to improve so that it can be removed from the threatened species list under the EPBC Act.”

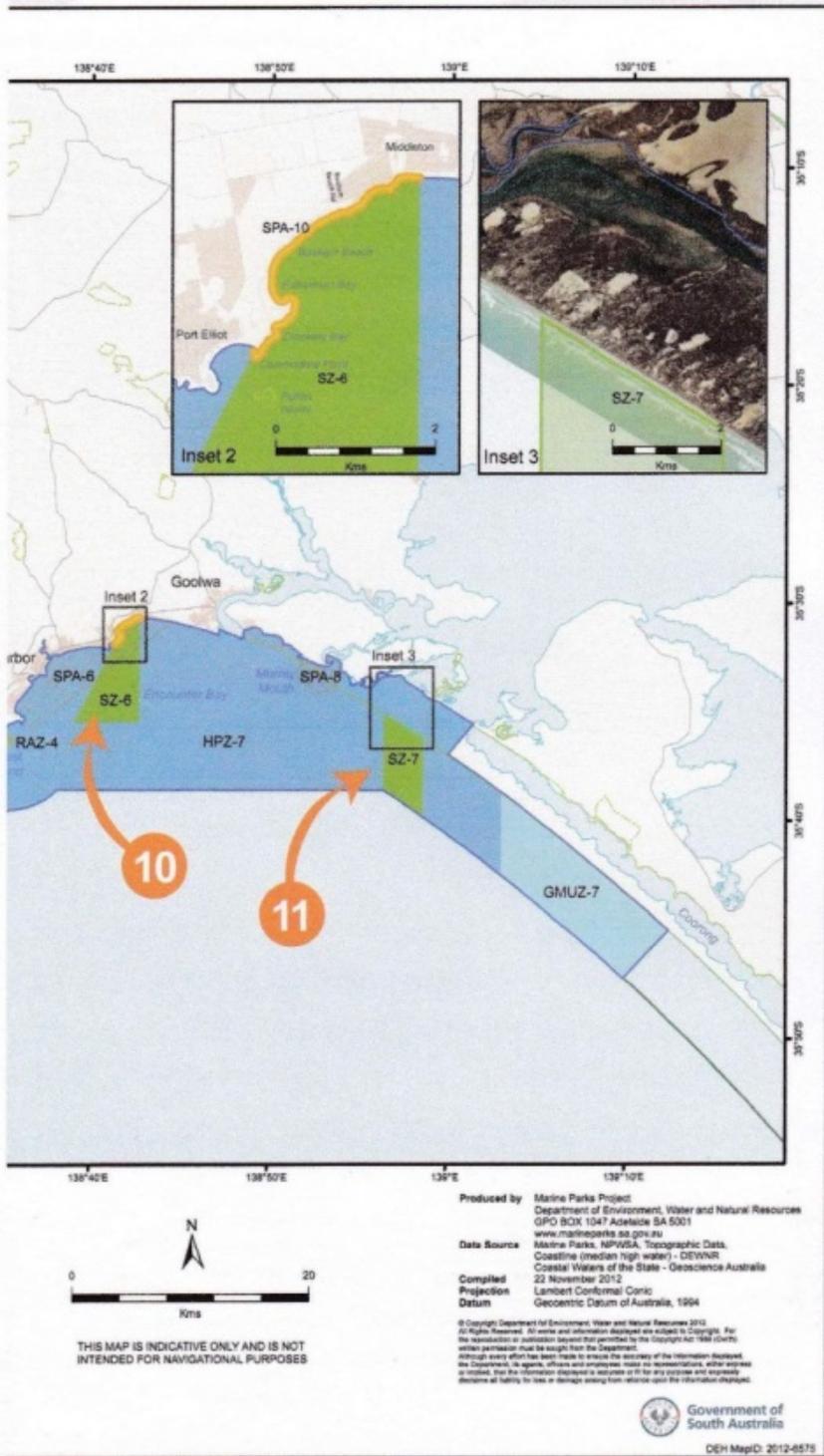
Interim Recovery Objectives (2011–2021)

“Recognising that the long-term recovery objective is unlikely to be achieved during the life of this plan, the following interim recovery objectives have been set for the period covered by the plan. The first three interim objectives assist in assessing the conservation status of the south-eastern and south-western populations against the EPBC Act listing criteria, and the remaining two relate to legal and management protection, and to minimising recognised threats.

- 1. Demonstrate that the number of southern right whales occurring off south-west Australia (nominally south-west Australian population) is increasing at or near the maximum biological rate.*
- 2. Demonstrate that the number of southern right whales occurring off south-east Australia (nominally south-east Australian population) is showing signs of increase.”*

The Oceanic Victor development as proposed could have a significant impact on these objectives being achieved. The need for protection, particularly for the South Eastern population is well understood.

This fact is clearly demonstrated by the declaration of a sanctuary zone for protection of the Southern Right Whale nursery area within the boundaries of the Encounter Marine Park and adjacent to the area described in this proposal. The sanctuary zone is well within the 10 km distance specified in the proponents’ proposal and referral documentation (*see map below*).



11
Coorong Beach North SZ
 Part of an internationally listed Ramsar wetland site, this zone is a cross section of typical Coorong habitats including beach, dunes and shallow lagoons. Important site for migratory birds.



10
Encounter SZ
 Iconic southern right whale gathering site and calving area.



9
The Pages SZ and RAZ
 One of the most important Australian sea lion breeding colonies in the State. Important site for sea birds.



8
Sponge Gardens SZ
 One of only two known deep sea trenches in SA waters and home to huge sponges often more than a metre in diameter.



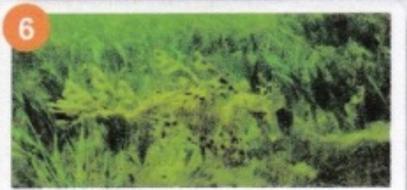
7
Pelican Lagoon SZ
 Regionally unique coastal lagoon. Unique shallow sponge beds in tidal channels. Key nursery area for a wide variety of fish. Important area for local and migratory shorebirds.



4
Carrickalinga Cliffs SZ
 Shallow reefs fringing the cliffs support some of the highest diversity of fish species recorded in Southern Australia.



5
Rapid Head SZ
 Home to the iconic leafy sea dragon. Important headlands, boulder beach and seagrass habitats.



6
Bay of Shoals SZ
 Highly important nursery area for a wide range of marine animals. Tidal flats provide an important feeding area for local and migratory shorebirds.

Figure 1: Encounter Marine Park Management Summary Plan DEWNR December 2012 FIS 91905

The following table from the Management Plan outlines Threats, and the Actions required, clearly demonstrating the Government's commitment to ameliorating dangers to cetaceans and Southern Right Whales in particular. Section 6 in particular applies in this instance and is considered Core Government Business.

Actions	Mechanisms to Achieve Actions	Indicative Cost
<i>A.3: Reducing commercial fishing entanglements</i>	<i>State government programs to disentangle whales</i>	<i>Core Government Business</i>
	<i>State government / industry partnerships to make fishing equipment whale and dolphin friendly</i>	
	<i>State government / industry Codes of Practice to reduce the risk of whale entanglements in fishing gear (e.g. WA and Tasmania)</i>	
	<i>Australian Government Threat Abatement Plan for the Impacts of Marine Debris on Vertebrate Marine Life</i>	
<i>A.4: Impacts of climate variability and change</i>	<i>Australian Government climate change adaptation initiatives</i>	<i>Core Government Business</i>
	<i>Ongoing research activity</i>	
	<i>Government grants programs (AMMC, the Australian Research Council (ARC) and other) for new research priorities</i>	
<i>A.5: Addressing vessel collisions</i>	<i>Development of the Australian Government ship strike strategy to mitigate against vessel/ cetacean collisions</i>	<i>Core Government Business plus \$80 000</i>
<i>A.6: Addressing infrastructure and coastal development impacts</i>	<i>Australian and state government environmental assessment processes</i>	<i>Core Government Business</i>
	<i>EPBC Act Environmental Offsets policy has measures that might compensate for environmental impacts that cannot be adequately reduced through avoidance or mitigation</i>	

B: Measuring Recovery

B.1: Measuring and monitoring population recovery

Ongoing Australian and state government monitoring programs

\$180 000 per annum plus \$280 000 one off

Ongoing research activity

Government grant programs (AMMC, ARC and other) for new research priorities

The importance of calving areas, areas considered critical habitat, cannot be underestimated in consideration of efforts to achieve recovery. Site fidelity is high and the importance of emerging Biologically Important Areas (BIA's) must be considered.

“Calving takes place very close to the coast in Australia, usually in waters less than 10 metres deep. Nursery grounds are occupied from May to October. Female-calf pairs generally stay within the calving ground for 2–3 months. On average, southern right whales have a single calf every three years. Gestation lasts 12 months, lactation at least 7–8 months with weaning complete within 12 months. Female southern right whales show calving site fidelity, generally returning to the same location to give birth and nurse offspring.

Other population classes stay in the calving grounds for shorter and variable periods. There is substantial movement along the coast indicating that connectivity of coastal habitat is important. The general absence from coastal areas of reproductively mature females in virtually all years between calving indicates that not all whales migrate to the coast each year. The winter distribution of these whales is unknown but may include offshore habitat where mating occurs.

Southern right whales from Australian populations probably forage between about 40°S and 65°S, generally south of Australia. In the region of the Sub-Tropical Front (41–44°S) they mainly consume copepods, while at higher latitudes (south of 50°S) krill is the main prey item. Right whales feed by surface skimming or shallow dives, trapping plankton on fine baleen fibres. The migratory paths between calving and feeding areas are not well understood.

Southern right whales have few natural predators. Calves, juveniles or weakened adults may be killed by sharks, which are common in some Australian calving grounds, or killer whales. Adult southern right whales rarely strand, but small numbers of calves are regularly found dead or stranded near calving grounds”.



The possible aggregation of predators near a nursery area is one possible ramification of this proposal although many factors of normal aquaculture facilities have been modified in an attempt to mitigate this possible impact. There is no degree of certainty regarding this potential impact given there is substantial scientific research indicating sharks being attracted to aquaculture cages.

The amelioration of as many stressors as possible is critical in sites considered Biologically Important Areas like Encounter Bay (*see map below*). Given the known site fidelity for calving mothers and the factors regarding low recovery rates of the South Eastern population, there needs to be careful consideration of all factors in play and the Conservation Management Plan should provide the guiding principles together with factors outlined in the *Climate Change Report Card 2012*.

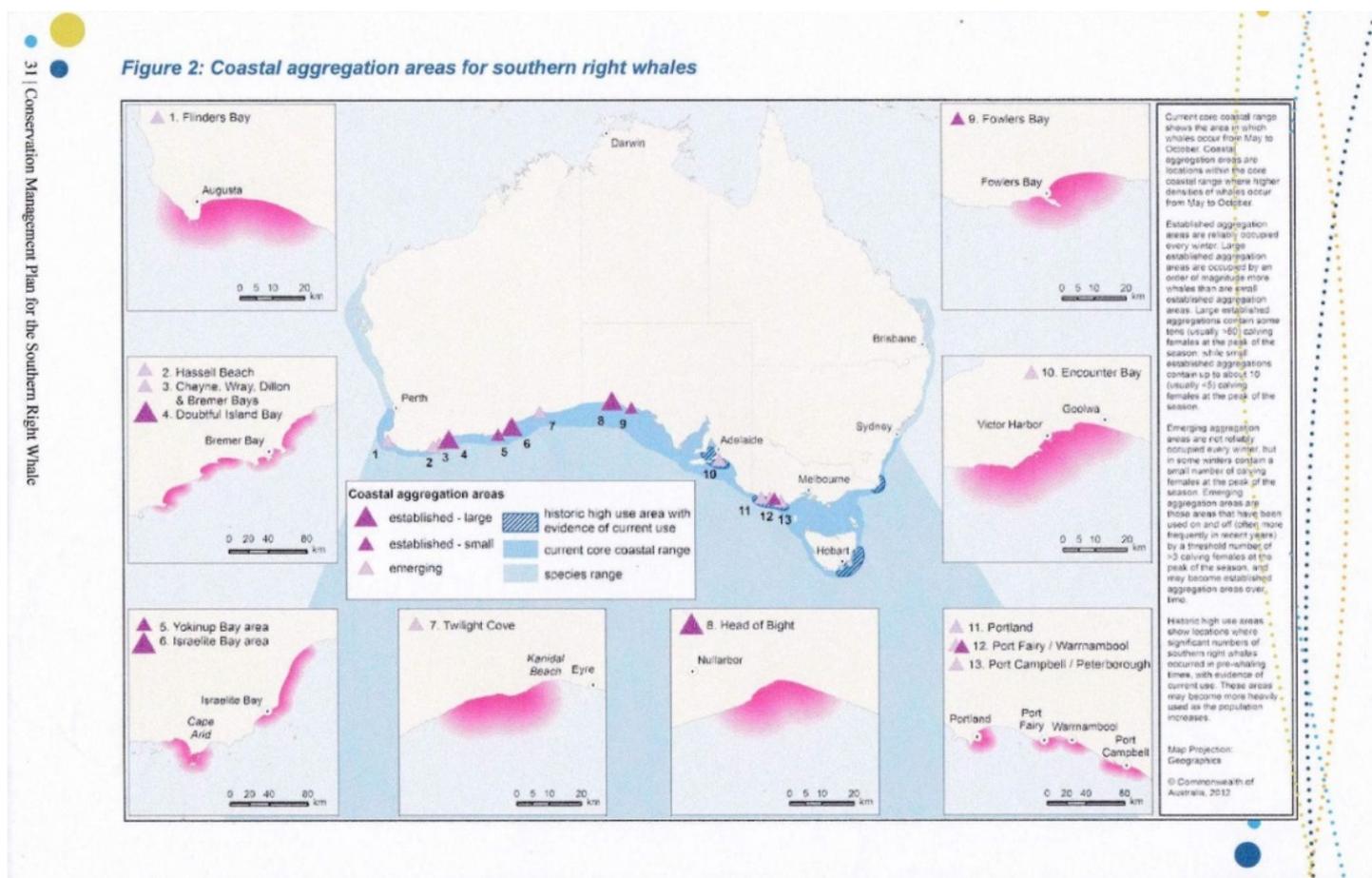


Figure 2: Coastal aggregation areas for Southern Right Whales – Conservation Management Plan for the Southern Right Whale

There is also the possibility of adding to cumulative impacts due to issues of climate change, ocean acidification, prey movements due to sea surface temperature rises etc and this, together with habitat changes which may possibly eventuate from this proposal, could have damaging consequences at both an individual and population level.

The following passage drawn from the report – *Marine Climate Change in Australia: Impacts and Adaptation Responses 2012 Report Card Marine Mammals* describes the possible impacts in some detail:

“However, effects of climate changes on marine mammals do not act in isolation, and other threatening processes may elevate any adverse effects of climate change on marine mammals. Although our understanding of the cumulative effect of multiple threats, including climate change, is poor, strategic amelioration of manageable threats will almost certainly add resilience to species most vulnerable to climate change.

However, the development and implementation of appropriate policies designed to protect and assist marine mammals to adapt to changing environmental conditions are hampered by a lack of knowledge. Therefore, information on trends in abundance, general ecology and conservation status is required for many marine mammals, particularly cetaceans. Key habitat also needs to be identified. This requires research into the locations, temporal use (both seasonal and daily) and physical characteristics of critical habitats used by marine mammals. Critical habitats are defined here, as those that are used for key life history events including breeding, giving birth, nursing young and migrating between feeding and breeding grounds, as well as important feeding areas.

Threats to marine mammals should be ranked and the most significant ones prioritised, focusing on manageable threats at the population level that lead directly to conservation gains. Critical habitats should be strategically managed for the protection of marine mammal populations, with an emphasis on maintaining high quality habitat. Protection could be achieved by managing levels of disturbance and by preserving key habitat elements, such as seagrass beds, coastal embayments, and pinniped colonies, and their surrounding waters.”

Certain traits with respect to site fidelity and their breeding cycle, birthing, nursing and associated behaviours impact on whales’ abilities to respond to external threats, including their ability to tolerate and respond to habitat changes.

The importance of Strategies and Actions to address threats is indicated in the section below from the Management Plan.

Table 3: Key mechanisms and indicative costing to achieve priority Actions **Mechanisms to Achieve Actions**

A: Assessing and Addressing Threats

<i>A.1: Maintain and improve existing legal and management protection</i>	<i>Continue or improve existing national and state legislative and management actions to minimise anthropogenic threats</i>
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The effects of stressors upon cetaceans are only just becoming known but it is understood that changes to habitat, particularly areas of critical habitat, can impact at both an individual and population level. Changes identified are complex and varied and can include anthropogenic noise, water quality issues, attraction of predators, pollution etc, all of which could apply in this instance.

The importance of minimising disturbances to critical areas of habitat wherever possible is clearly understood as a priority as stated below.

“Recognition of southern right whale Biologically Important Areas in the marine bioregional planning process designed to identify regional conservation priorities.

Ongoing support for research programs that improve understanding of southern right whale recovery and interactions with humans.

Small and potentially emerging aggregation areas used for calving and nursing - These are important for recovery in terms of expanding the habitat occupancy of southern right whales and contributing to the maintenance of genetic diversity as site fidelity may lead to small scale genetic differences. These areas will contribute to overall population increases and enable calf production to regularly occur at a greater number of sites as recovery progresses.

Coastal connecting habitat, which may also serve a migratory function or encompass locations that will emerge as calving habitat as recovery progresses (some locations within connecting habitat are occupied intermittently but do not yet meet criteria for aggregation areas).

Historic high use areas or suitable habitat in parts of the coastal range currently not used or under-used and potentially important to support full spatial recovery.”

F. Habitat modification

“Habitat modification can result in a range of impacts from physical displacement of individuals to minor disturbances which, if long term or disruptive to the breeding cycle, can ultimately reduce a population’s fitness.

Infrastructure / coastal development:

Habitat modification through the development of infrastructure such as ports, marinas, aquaculture facilities, and marine/ocean energy production facilities could lead to the physical displacement of southern right whales from preferred habitats and disrupt movements. This displacement has the potential to reduce breeding success by forcing animals to reproduce in more marginal environments and by increasing their exposure to other risks such as entanglement, predation, vessel disturbance and pollution. Associated industrial activities in the coastal zone may also reduce habitat suitability.”

The review of the 2005 > 2010 Recovery Plan clearly demonstrated the need for caution with respect to the projected recovery of the South Eastern population.

“The review found that the objectives of the 2005–2010 Recovery Plan were achieved in relation to assessment of the south-western population of southern right whales, however, information on the south-eastern population was found to be lacking. The review prioritised the need for long term monitoring of the south-eastern population of southern right whales. The review also noted the impacts of large scale climate change signals in the southern hemisphere on the reproductive output of Australian southern right whales.

The review found that objectives of the 2005–2010 Recovery Plan were not achieved in relation to expansion of southern right whales into suitable habitat. Occupancy of coastal habitats remains severely restricted in comparison to the areas occupied historically, particularly in south-east Australia. The review recommended that the Recovery Plan be updated to reflect new knowledge including mapping of aggregation area extensions. Updated maps of species range, current and emerging aggregation areas are presented in Section 4.”

Employment of the Precautionary Principle as defined and entrenched in the Act seems more than appropriate in this situation, given the potentially devastating impacts and the lack of knowledge which currently surrounds these.

We therefore believe this should be declared a Controlled Action until such time as this aspect of the proposal and its possible impacts have been further explored. It may be that amelioration of possible impacts could be addressed through strategies of temporal mitigation or similar and only by deeming it a Controlled Action can the necessary time and effort be put into full exploration and development of appropriate management strategies to ensure minimal impacts as required under the provisions of the EPBC Act and the *Conservation Management Plan for the Southern Right Whale; A Recovery Plan under the Environment Biodiversity Protection and Conservation Act 1999 – 2011 > 2021.*

Thankyou very much for your consideration.

Yours sincerely,

s47F

References:

1. Conservation Management for the Southern Right Whale; A Recovery Plan under the Environment Protection and Biodiversity Conservation Act 1999 – 2011 >2021
2. Figure 1: Encounter Marine Park Management Summary Plan DEWNR December 2012 FIS 91905
3. Marine Climate Change in Australia: Impacts and Adaptation Responses 2012 Report Card Marine Mammals
4. Figure 2: Coastal aggregation areas for Southern Right Whales



s22

s22



Australian Government
**Department of Agriculture
and Water Resources**

Ref: MC15-008924

s22

Acting Director
West Assessments Section
Assessments (WA, SA, NT) & Air Branch
Department of the Environment
GPO Box 787
CANBERRA ACT 2601

Dear s22

I write in response to the letter of 28 October 2015 from s22 (Director, Referrals Gateway, Data and Information Management Section, Department of the Environment) inviting comment from the Hon. Barnaby Joyce MP, Minister for Agriculture and Water Resources, on referral EPBC 2015/7592 (Oceanic Victor Viewing Platform Proposal, SA) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Minister for Agriculture and Water Resources has asked me to reply on his behalf.

The Department has considered the proposed action from a fisheries perspective and has not identified any significant impacts on any matters of national environmental significance protected under the EPBC Act.

Thank you for offering the Minister for Agriculture and Water Resources the opportunity to comment on referral EPBC 2015/7592.

Yours sincerely

s22

Assistant Secretary
Sustainable Agriculture Branch
November 2015



REF DEWNRD-00004008

13 November 2015

s22

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Dear s22,

Re: EPBC 2015/7592 Oceanic Victor Viewing Platform Proposal, SA

I write on behalf of the South Australian Government regarding your invitation to comment on the above referral received by the Australian Government Department of the Environment (AG DotE) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The South Australian Government response to the AG DotE, as assessed against the Commonwealth's listing criteria, has identified the following issues for your consideration in making a determination.

3.1 (d) Listed threatened species and ecological communities

Great white sharks –The Proponent should consider the objectives of the Recovery Plan for White Shark (Department of Sustainability, Environment, Water, Population and Communities, 2013).

Right whales (Pygmy Right Whale and Southern Right Whale) - The development is proposed to occur within a broad area known for Southern Right Whale breeding. The Proponent could consider developing a strategy that ensures they are minimising interactions with marine mammals in general.

Seals and Australian Sea Lion – The long-nosed fur seal population in the region has undergone a period of recovery in recent time as a result there is likely to be increased interactions with humans. The Proponent could consider developing a strategy that ensures they are minimising interactions with marine mammals in general.

3.1 (e) Listed migratory species

A total of 29 EPBC listed migratory species or their habitat are recorded as occurring in and around the proposed site. A review of risks to these species was completed under the South Australian Aquaculture Regulations (2005) as part of the proponent's aquaculture lease application. The impacts considered in relation to migratory and threatened species included potential for interactions, noise effects and behavioural effects with all assessed as low risk.

It should be noted that a similar business venture has been operating in Port Lincoln for over ten years and no significant issues have arisen with whales and great white sharks.

For further information please contact the SA EPBC Act Referral Team, in particular s22 on (08) 8463 s22 or e-mail: DLDEWNREPBCReferrals@sa.gov.au.

Yours sincerely

s22

A/ GROUP EXECUTIVE DIRECTOR