



Office of
Environment
& Heritage

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SSI 5118

Ms Joanna Bakopanos
Team Leader, Industry Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Kerry Hamann

Dear Ms Bakopanos

**RE: REVIEW OF THE MARINE FINFISH RESEARCH AND COMMERCIAL AQUACULTURE –
MODIFICATION PROPOSAL - PROVIDENCE BAY (SSL 5118 MOD 1 AND DA 81-04-01 MOD 3)**

I refer to your email dated 8 March 2016, seeking comments on the exhibited Department of Primary Industries (DPI) Fisheries and Huon (Tasmania) modification to their approved Marine Finfish Research and Commercial Aquaculture development at Providence Bay east of Port Stephens. The Office of Environment and Heritage (OEH) understands the Modification Report was on public exhibition from 11 to 24 March 2016.

OEH has undertaken a review of the Modification Report titled 'Application to modify the consents approving finfish aquaculture for Pisces Aquaculture Holding Pty Ltd and NSW Department of Primary Industries (NSW DPI)'. OEH has reviewed this report in relation to threatened biodiversity and identified a number of issues which need to be addressed or further clarified. OEH is unable to support the project until this matter is adequately addressed.

Further details of OEH's assessment are provided in **Attachment A**.

If you require any further information regarding this matter please contact Steve Lewer, Regional Biodiversity Conservation Officer, on 4927 3158.

Yours sincerely



6 APR 2016

RICHARD BATH
Senior Team Leader Planning, Hunter Central Coast Region
Regional Operations

Enclosure: Attachment A

ATTACHMENT A: OEH REVIEW OF THE MARINE FINFISH RESEARCH AND COMMERCIAL AQUACULTURE – MODIFICATION PROPOSAL - PROVIDENCE BAY (SSI 5118 MOD 1 AND DA 81-04-01 MOD 3)

THREATENED BIODIVERSITY

Cetaceans, Pinnipeds (seals) & Marine Turtles (or other matters)

OEH has reviewed the modification report and has concerns regarding potential impacts on marine wildlife. With respect to cetaceans, seals and marine turtles, OEH offers the following comments and recommendations:

- The relocation of the facility to a location 7-9 kilometres (km) further offshore places it within the migratory pathway of female Humpback whales with calves heading south. The initial proposal closer inshore, used data from an earlier experimental facility to suggest limited interaction with the Humpback migration. These data do not exist for the relocated facility. OEH requests that:
 - the building/fabrication of the facility preferably occur outside the migration period (November – March)
 - data is collected on the abundance and route taken by humpback whales in the selected construction zone during the 2016/17 whale season so that building impacts will be minimised during the building/fabrication of the facility
 - OEH be contacted prior to any testing/building that requires seismic or loud acoustic disturbance
 - all observations of whales, seals and turtles be recorded by on-board observers and reported annually to OEH for recording on the OEH database
 - periodic support be provided by the proponent for OEH/University researchers to utilise the platform for the purpose of conducting whale, seal and seabird census.
- During the construction phase work must cease whenever cetaceans approach within the legislative approach distances and will restart 15 minutes following the departure of the cetacean from the site – this should also be stated in the Marine Fauna Interaction Management Plan.
- Unless unsafe to do so, vessels transiting to and from the site must adhere to restricted vessel speed (which needs to be negotiated) and post additional lookouts to avoid vessel strike.
- There will need to be a review of any protocol for dealing with carcasses of dead marine fauna either entrapped by the nets or floating carcasses captured by anchor cables. This could also be dealt with in the Marine Fauna Interaction Management Plan.
- Notification procedures must be in place to ensure that information is quickly communicated to DPI Fisheries/OEH following and entanglement/entrapment of any marine reptile, mammal or seabird.
 - NPWS State Duty Officer Phone: 9895 6444. State Duty Officer email: fims.incidents@environment.nsw.gov.au.
 - Coordinator Marine Fauna Programs - OEH contact: Geoffrey Ross 041 111 0882 or email: geoff.ross@environment.nsw.gov.au.
- Approach distances for all vessels around the facility must be adhered to and needs to include a 300 metre approach for cow and calf cetacean pairs or 100 metres for dolphin plus calf.
- The Department of Planning and Environment (DPE) need to ensure that the proponent is aware that they will fund the establishment and training of; or provide funding support of an existing large whale disentanglement team located in the local area (either Huon personnel, Marine Parks personnel, NPWS personnel, DPI Fisheries personnel or a combination of all of the above. I recommend a combination as there is a currently trained LWD team in the Hunter region).

- There will need to be guidelines in place to minimise the possibility of marine debris arising from the platform during the construction and operational phases and a plan in place for recovery of any part of the facility that beach-washes into the Marine Park or Nature Reserve

OEH/NPWS would be happy to work with DPI Fisheries and the proponent to assist in the further discussion around implementation of the Marine Fauna Interaction Management Plan.

Furthermore, OEH notes that much of the activity will be occurring in Commonwealth waters and as such will require their consent. Therefore, DPE will need to ensure the proponent liaises with the Australian Government.

Pelagic Birds

OEH has reviewed the modification report and has concerns in regards to the impact of artificial light from the proposal attracting young of pelagic birds, particularly during their fledging period (i.e. March to mid-May). The species of concern are the NSW threatened Gould's Petrel (*Pterodroma leucoptera leucoptera*), and the federally listed (under the *Environment Protection and Biodiversity Conservation Act 1999* as migratory) Wedge-tailed Shearwater (*Ardenna pacifica*) and Short-tailed Shearwater (*Ardenna tenuirostris*).

A recent study of fledglings grounded due to light attraction on Phillip Island, Victoria, found that a development 15 km from the island attracted 25 per cent of all known grounded birds for that year, significantly these had already gone to sea (Rodríguez *et al.* 2014). This study summarised information from the recently built Wonthaggi Desalination Plant. This plant is located on mainland Australia about 15 km from the closest shearwater breeding colony (Cape Woolamai) and produced light pollution levels around 27 nW/sr*cm² during the construction phase, which is five times higher than the most light-polluted area on Phillip Island. In 2012, 237 shearwater fledglings were grounded at this site, which constituted the equivalent to one-quarter of all grounded birds on Phillip Island in the same year. The authors concluded that study supported the hypothesis that fledglings can be attracted to lights after reaching the ocean, and thus impact their movement / dispersal patterns.

Given the position of the proposed finfish farm to Cabbage Tree Island and the Broughton Island Group in general (which support the largest shearwater colony in NSW), it may impact on the Gould's Petrel and the two above-listed shearwater species. OEH is concerned that the impact of the lights may be significant and as such requests the proponent to provide further clarification on this matter with respect to the pelagic birds listed (as well as other likely species) and the potential impact to known colonies / breeding roosts on islands of the Broughton Group. OEH is of the opinion that a condition that requires nil or very minimal lighting during fledging period (late March to mid-May) is likely be necessary to avoid fatal attractions.

References:

Rodríguez, A., Burgan, G., Dann, P., Jessop, R., Negro, J.J. and Chiaradia, A. (2014) Fatal attraction of Short-Tailed Shearwaters to artificial lights. *PLoS ONE*, **9**(10): e110114. doi:10.1371/journal.pone.0110114.

