PCU52859

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Development Assessment Systems and Approvals
Planning and Infrastructure
GPO Box 39, Sydney, NSW 2001

Attention: Director, Industry, Key Sites and Social Projects

RE: Application MP 10_0006. Pindimar Abalone Project.

I do not wish my name or contact details to be made available to the proponent, public authorities or the agency website.

As a permanent resident I object to the Pindimar Abalone Project for the following reasons:-

1. Noise. The noise assessment methodology used in the EAR deviates from the NSW Industrial Noise Policy and is not consistent with the maintaining the ambience of Pindimar Village. (Zone no 2, "Village Zone" under the 1996 Great Lakes Local Environmental Plan (LEP) , Zone RU 5, "Village" under the draft Great Lakes LEP 2013 and Great Lakes LEP 2014). No noise associated with the aquaculture process should be permitted beyond the boundary of 180 Clark St.

- Monitoring should have been carried out on and immediately adjacent to the proposed Abalone Farm site.
- Background monitoring and ambient noise was monitored at the corner of Cambage and Cunningham Sts, approximately 1km away from the proposed Abalone Farm site.
- Appendix 21: Noise Impact Assessment 2011 cites the requirement of the NSW Industrial Noise Policy for background monitoring to characterise the ambient (existing) noise environment adjacent to the proposed development and establishing a Project Specific Noise Level (PSNL) on the basis of background monitoring to protect adjacent sensitive receivers from both intrusive noise and impacts on amenity;
- The foreshore including South Pindimar Beach adjacent to the Abalone farm are popular attractions and should not suffer from intrusive noise.
- The adjacent protected SEPP14 wetland including part of Pig Station Creek is home to many species of wildlife including White Breasted Sea Eagles which do not tolerate noise.

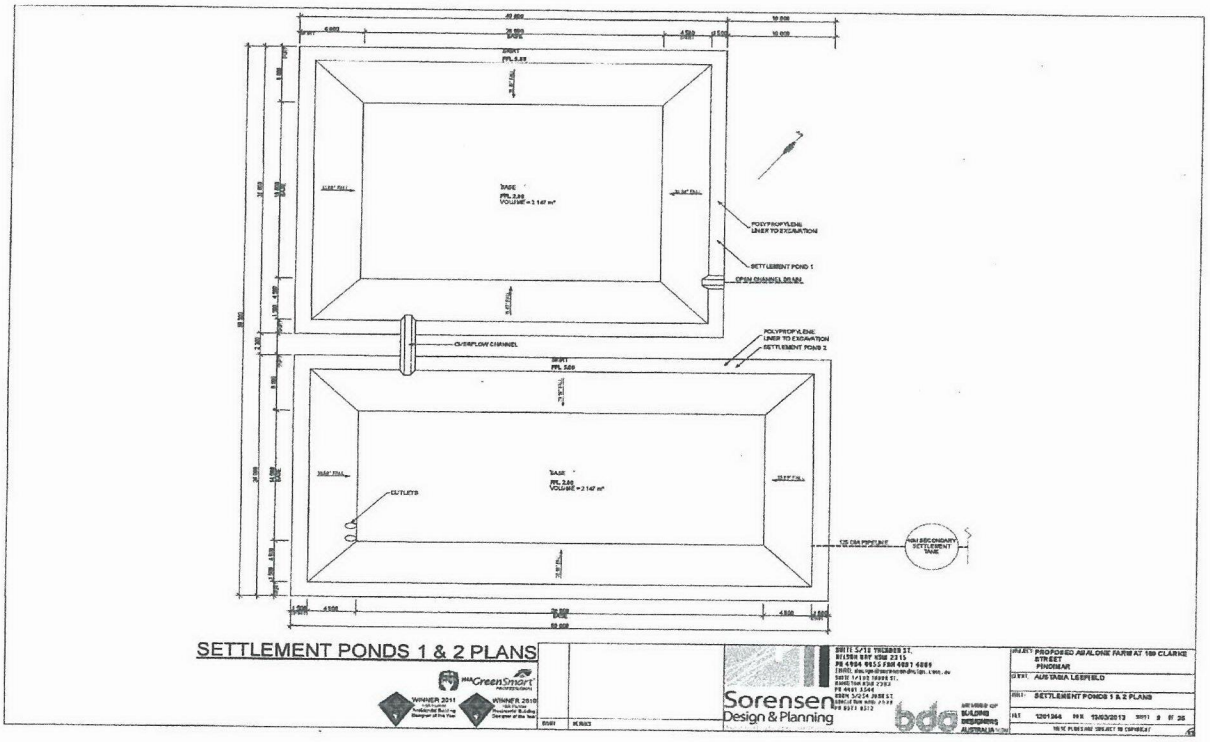
2. Traffic. Section 5.11.3 of the EAR states "As the farm is not likely to create any adverse impacts on the functionality, safety or amenity of the local road network, no specific mitigation measures are proposed" adding that no existing vehicle use monitoring has been carried out. The traffic entrance to the proposed Abalone Farm site should be by the 180 Clark St frontage.

- The EAR fails to note that there are only 24 permanent residences in Cambage St from which local observations indicate an average vehicle movement of 1 return trip every second day.
- Based on the proponents figures during operation of 12 return trips daily, the traffic increase will range from 100% at the corner of Cambage and Clark Sts to 2300% at the current dead end of Cambage St.

- Based on the above projections, the construction traffic increase will range from 2300% to 3900%
- The traffic increase is not consistent with the maintaining the ambience of Pindimar Village. (Zone no 2, "Village Zone" under the 1996 Great Lakes Local Environmental Plan (LEP), Zone RU 5, "Village" under the draft Great Lakes LEP 2013 and Great Lakes LEP 2014 which cites the purpose "to enable non-residential development that does not prejudice the established land use pattern within the village").
- Despite the proponents assertion in the EAR " The creation of new roads was considered undesirable due to impacts associated with additional vegetation clearing" for access via the Clark St frontage, existing fire and access tracks do exist.
- Access via the Clark St frontage would be consistent with the current rural zoning for this property and ensure that all activities pertinent to the proposed Abalone farm are carried out without impacting on village residents.

3. Settlement Pond #2. The design for Settlement Pond #2 is not conducive to settlement and detracts from the purpose of the Marine Water Quality Management System.

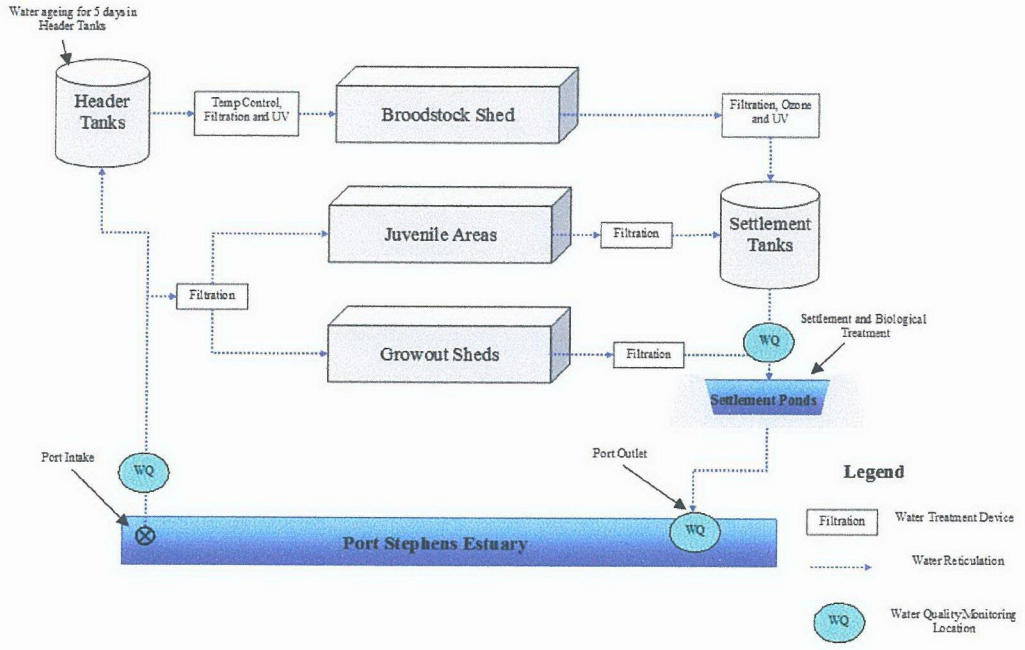
- Refer to attached Settlement Ponds 1 & 2 Plan from Appendix 2 of the EAR.
- Pond 1 is a relatively standard design with solids settling out in the pond as the velocity slows, this pond then overflows to Pond #2 via a high level overflow channel.
- Pond 2 has inlets from Pond #1 and Settlement Tank #2. Dual outlets with a capacity of around 580l/s at the bottom or invert of the pond mean it's unlikely to operate as a standard settlement pond as what comes in will go straight out with no detention.
- There is no clear explanation or methodology shown as to how Settlement Pond #1 will be by-passed for periodic cleaning or how flow will be diverted to Pond #2.



- In reference to the Pindimar Abalone Farm Environmental Assessment Report page 125 and Marine water Quality Management System –Conceptual View attached:

  ***Settlement & biological treatment**: after use within tanks and raceways, all water will be directed to the 2 Settlement Ponds (via Primary and Secondary Settlement Tanks where necessary, to ensure all water passes through at least 2 settlement systems). Suspended solids within the water column will settle to the bottom of Ponds before release back into the Port. Residence time within the Settlement Ponds will also allow for natural air exchange, which will help to restore dissolved carbon dioxide and oxygen levels (and subsequently, water pH levels) to equilibrium (Housefield, G. 2013, pers. comm. 13 March). As for all such ponds within Australian Abalone farms, marine organisms will naturally establish within the Settlement Ponds (e.g. algae, various filter feeders, detrivores and herbivores). These organisms will consume excess organic matter, nutrients (in particular Nitrogen as Ammonia), algae and other vegetative biomass (i.e. 'biological treatment'). This process is similar to naturally occurring benthic processes and will reduce the levels of particulates, nutrients and organic materials within the water column.*

- Figure 17 Marine water Quality Management System –Conceptual View attached



- The configuration of Settlement Pond #2 as currently shown indicates that discharge water from the Broodstock and Juvenile Areas via the Settlement Tanks will not undergo Settlement Pond residence time.

4.Electrical or mechanical harmonics and water hammer: An unfortunate impact of hydraulic processes is the possibility of water hammer from pumped flows expressed as ground vibration and harmonic vibration from rotating mechanical and electrical equipment such as pumps and generators which can result in sympathetic noise and/or vibration in structures such as houses. These can be felt a fair distance from the source and not necessarily impact the closest property.

To compound the issue, there are no readily identifying factors that would enable these occurrences to be engineered out despite the designers best efforts until operation of the equipment occurs.

I can find no reference in the proponent's documentation to say that any such operational issues have been considered or would be addressed post commissioning apart from those directly related to licensing.

As this type of issue generally falls outside the gamut of classified noise, it relies on the good will and responsible ownership of the proponent.

While I have included the above as an example of possible operational issues if the proposed Abalone Farm is approved it does highlight the need for ongoing independent oversight of the project and the requirement for an ombudsman type of role.

5.Viability: I cannot understand how a proposal for a abalone farm sited in an estuary and approximately 10kms from the port heads can be considered viable.

The proponents cite the criticality of good inlet water quality including temperature but are proposing a site subject to the vagaries of water quality (particularly nitrogen) from the Karuah and Myall Rivers, fresh water impact due to rainfall (Port Stephens long term annual rainfall is 128 rain days per year or around 10 days per month with a mean annual rainfall of 1349mm per year) as well as existing urban and rural runoff impacts.

The proponent claims that the proposed recycling capability and the presence of a "saltwater lens" or inversion layer will ensure good inlet water quality is maintained but there has been no modelling carried out on the "lens" to determine the impact and at what stage does removal of the seawater under the freshwater layer result in mixing .

Additionally, the discharge from the proposed farm has to be carried approximately 10kms to the port "heads" and will be subject to the nuances of currents, eddies, winds and tidal flows with daily changes.

Manly Hydraulic Laboratory cite highly variable flows with up to 12 days for the port to flush, this is significantly at odds with the proponents claim when addressing this concern following community consultation, stating in the EAR on p261: "issues are addressed at **Section 5.4** and in more detail at **Appendix 19.** Water in this area is rapidly flushed to the continental shelf ". The continental shelf is located approximately 40kms away.

Due in the high incidence of failure due to disease in shore based abalone aquaculture in Victoria, South Australia, Western Australia and Tasmania and considering their locations on the coastline were more conducive for aquaculture, this venture must be considered high risk and "precautionary principles" should be rigorously applied particularly in relation to discharges from the facility to Port Stephens. The proponents Concluding Statement in the Executive Summary of the EAR p.xiv : "Based on the environmental assessment, the Project is <u>not likely</u> to have significant detrimental impacts on the physical or social environment" cannot be construed as being absolute in terms of proof, confidence or fact.

I have made no political donations over the past two years.

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