

Submission on SSI 5657

Commercial Shellfish Aquaculture Leases
Jervis Bay NSW

Thank you for the opportunity to comment on the EIS for the above project.

The Jervis Bay Regional Alliance strives to ensure protection of the environment and visual quality of the coast and catchments in its area. Members are therefore very interested in anything that happens or is to happen in Jervis Bay.

In the main, we believe it to be a very thorough EIS and this is more than likely because of the extensive consultation carried out prior to its writing. Those involved from the Fisheries Division of the Department of Primary Industries are to be congratulated on this approach.

Please take into account the following issues.

Affects on local species

Increased catch of other species

From the 2010 paper *Environmental and Socio-Economic considerations for Aquaculture in Jervis Bay, NSW* by Joyce, Robio-Zuazo and Winberg, there is an indication that once the aquaculture sites are set up they may act as lures for fish from the protected Sanctuary Zones of the Marine Park into areas where they may be easily fished. Adherence to the monitoring program suggested in this report will show whether increased catch of species becomes an issue. Impact on the behaviour of marine species is assessed (8.2.2.7) at low risk in the EIS which says "It is considered unlikely that the Commercial Shellfish Aquaculture leases will have a significant impact on any species of fish", but we do not know this unless some monitoring is done on species. **We therefore request a monitoring system as suggested by the paper mentioned be incorporated in the requirements of the lease.**

Integrity of the species in the Bay

The EIS indicates a moderate risk for a significant impact on the genetic integrity of wild populations in the Bay as well as possible increase in competition for resources. There is mention in the EIS that this can be moderated by controlling stocking densities. Water quality will also come into play. We are concerned over spat and anything else that will be introduced into Jervis Bay from outside Jervis Bay. Is the stocking density that might finally tip the balance known? Has some thought been given to the growing of local spat? This would ensure even more employment is gained from the enterprise.

Entanglements

We are concerned for the welfare of marine animals such as whales, dolphins and seals becoming entangled in the aquaculture structures. Is there any

information on other sites of aquaculture with similar numbers of similar species where it has been shown there are no entanglement problems? Diving sea birds such as Albatross and penguins may be similarly affected.

Ingestion of marine debris

Once the leases are operational, management reports are required to address, among other things, entanglement and ingestion of marine debris. While it will be obvious to the operator when there is entanglement, ingestion of marine debris, say from parts breaking off the infrastructure, may cause the death of an animal off-site. We are pleased therefore that a Structural Integrity and Stability Monitoring Program is required to look at this issue. We understand the frequency of reporting will be finalised when the lessees are appointed. **We ask that some form of monitoring be set up to examine deaths of animals off-site.** This will include working with the public to get them to report dead animals found on shore or in the Bay.

Monitoring

The draft Environmental Management Plan at Appendix 1 of the EIS indicates the specific environmental responsibilities of the staff of the lease operator/s. Those staff at Leading Hand level and below are required to report non-conformance. There are two issues here.

1. If it becomes so serious as to require whistle-blowing, it is unfair to make this a choice for personnel at those levels. **An independent party chosen by the authorities should be asked to carry out environmental monitoring, with the cost paid by the lease/permit holder** (as then they will not have to pay staff to do it) **and the results made public.**
2. SEPP 62 on sustainable aquaculture, so far, does not contain in its Schedule 2, minimum performance criteria for permissible development. Can we assume that this would cover those standards required for monitoring, and if so, until these criteria are written, what are the criteria against which monitoring will be carried out?

Allowable area for aquaculture

This EIS covers a total of 50 hectares of aquaculture. Necessity will dictate that, in time, leases will need to be increased in size to cope with higher shellfish demand. The total allowable area in Jervis Bay at the moment is 440 hectares. **We feel this is too great a size and will impose an untenable pressure on the maintenance of the amenity of the Bay for ALL its users.**

Changes to sediments and currents

A paper, *Influence of suspended and off-bottom mussel culture on the sea bottom and benthic habitats: a review* by McKinsey, Archambault, Callier and Olivier in Vol 89, Issue 7 July 2011 pages 622-646 of the Canadian Journal of Zoology states in the abstract that

Both longline and “bouchot” mussel culture add much physical structure (infrastructure and mussels) to the environment,

altering hydrosedimentary processes by modifying currents and increasing sedimentation locally, and providing habitat for many benthic organisms.

This requires consideration so that **any probable resultant sediment or current changes can be notified to other users of the Bay. They can then comment on whether it affects their activities.**

Visual amenity

Last but not least, a number of our members have put visual amenity as a high priority for the Bay. While the EIS downplays this, others from a different mind-set find anything like rows of buoys, however far apart, an intrusion into the natural beauty of the Bay.

A paper, *Natural character and visual impact assessment of potential finfish farming development* prepared by Bernard Brown Associates Ltd for Environment Waikato in 2008 discusses the visual amenity affects from mussel farming (see <http://www.waikatoregion.govt.nz/PageFiles/9863/TR08-24.pdf>). It refers to research carried out to show that navigational lighting is typically visible between 1 and 3 kilometres at night time ie from the shore in the case of Jervis Bay. While the EIS takes account of the effect of artificial lighting on light sensitive species, no consideration has been given to the number of properties that are within the up to 3 km distance from the shellfish farm installation and whether the lights might also contribute to a lessening of the visual amenity of the Bay.

Conclusion

While we believe this EIS is thorough in the topics that have been covered, we feel that if shellfish farming is to go ahead in spite of concerns expressed above, much depends on the rigour of the monitoring system. It is imperative therefore that the best standards be required and that independent monitoring be the way these standards are ensured.

Thank you for accepting this submission

Yours sincerely

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13 November 2013