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131 Macquarie Street
Hobart TAS 7000

tel: (03) 6223 2770
email: edotas@edotas.org.au

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Chairperson, Marine Farming Planning Review Panel
Marine Farming Branch
Department of Primary Industries, Parks, Water and Environment
GPO Box 44
Hobart TAS 7001

Uploaded online

Dear Mr Midgley,

Submission on Draft Storm Bay North Marine Farming Development Plan

The Environmental Defenders Office (Tasmania) Inc (**EDO Tasmania**) is a non-profit, community-based legal service specialising in environmental and planning law. We have a long-standing interest in best practice assessment and regulation of aquaculture.

On Saturday 9 December 2017, the Department of Primary Industries, Parks, Water and Environment (**DPIPWE**) invited submissions addressing Petuna's *Draft Storm Bay North Marine Farming Development Plan* (the **Draft MFDP**). The Draft MFDP was advertised together with Tassal's *Draft amendment no. 5 to the Tasman Peninsula and Norfolk Bay Marine Farming Development Plan*; and Huon Aquaculture's *Draft amendment no. 3 to the Storm Bay off Trumpeter Bay North Bruny Island Marine Farming Development Plan*. All three plans comprise the industry's proposed expansion into oceanic waters of Storm Bay (the **Storm Bay expansion**).

In response to the Government's Draft Sustainable Industry Growth Plan, EDO Tasmania expressed general support for moving Tasmanian salmon farms from estuarine into oceanic environments. However, that support is predicated on there being adequate regulatory controls in place to protect the environment, as well as sufficient environmental baseline studies and modelling to demonstrate that the oceanic marine farming activities will not have significant or irreversible environmental consequences.

EDO Tasmania also considers that any expansion of marine farming to oceanic areas should be balanced by the appropriate protection of important marine areas. We note that between 2006 and 2008 the then-Resource Planning and Development Commission undertook a comprehensive review of the proposed Bruny Bioregion and made a series of recommendations about marine protected areas (**MPA**).¹ The Government is yet to implement all of the Commission's MPA recommendations.

We understand that the creation of MPA is not within the jurisdiction of the Marine Farming Planning Review Panel (the **Panel**). However, we urge the Panel to note the outstanding MPA recommendations in its report on the Draft Amendment, particularly in light of the

¹ Resource Planning and Development Commission (2008) *Inquiry into the establishment of marine protected areas within the Bruny Bioregion: Final Recommendations Report*

other areas in Storm Bay that the Government has earmarked for potential salmon farming expansion.²

In the context of these general remarks, we make the **following** detailed comments on the Draft MFDP and associated environmental impact statement (the **EIS**).

TPDNO cap and staged approach to expansion

In providing an overview of the proposed Storm Bay Developments, the Department of Primary Industries, Parks, Water and Environment (**DPIPWE**) states:

The companies have aspirations for a total production from Storm Bay of 80,000 tonnes per annum. In recognition that robust scientific information is not currently available to predict the environmental effects of this level of production, the potential environmental effects of a combined level of production of approximately 40,000 tonnes per annum are being considered in the environmental impact statements that support these planning processes.³

In the absence of sufficient scientific information to support the full extent of the industry's proposed expansion of marine farming into Storm Bay, EDO Tasmania is supportive of the proposed staged approach to expansion. The imposition of a Total Permissible Dissolved Nitrogen Output (**TPDNO**) cap on all finfish marine farming in Storm Bay is a sensible mechanism to limit the environmental effects and rates of expansion. As the Draft MFDP and associated EIS addresses the proposed expansion of marine farming in Storm Bay up to a total biomass production of 40,000 tonnes per year, we submit that it would be inappropriate to approve the Draft MFDP without a TPDNO cap to reflect this limit.

While it may be the usual practice to impose TPDNO limits as conditions of marine farming licences under the *Living Marine Resource Management Act 1995* (the **LMRM Act**), we consider that it is more logical for the cap to be imposed in the Draft MFDP. This is because many planning issues arise from the intensification of marine farming which will not necessarily be addressed statutory decision-makers through separate legislative assessment processes.

If the Panel considers that no TPDNO cap should be imposed in the MFDP, then we seek clarification as to:

- the “separate assessment process”⁴ that will apply to the industry expansion beyond 40,000 tonnes up to 80,000 tonnes total production; and
- the level of public consultation that will be required to be undertaken in relation to the expansion;⁵ and
- how all the related planning issues will be taken into account by the relevant decision-maker.

² DPIPWE (2017) *Sustainable Industry Growth Plan for the Salmon Industry* at pp.12-13.

³ Accessed on the DPIPWE website at <http://dPIPWE.tas.gov.au/sea-fishing-aquaculture/marine-farming-aquaculture/marine-farming-development-plans/marine-farm-planning-proposals> on 16 January 2018.

⁴ Ibid.

⁵ We note that there is no requirement that applications for or amendments to marine farming licences under the LMRM Act be publically notified, and that it is presently unclear in what circumstances amendments to environmental licences issued for finfish farms under the *Environmental Management and Pollution Control Act 1994* (**EMPCA**) will be required to be publically notified.

Stocking density

The EIS states that final harvest stocking density in the pens in the MFDP zones will be 12kg/m³.⁶ However, Management Control 3.3.1 in Draft MFDP allows for a maximum permissible stocking density of 25kg/m³.⁷ If all the EIS data and modelling has been based upon a much lower stocking density, we submit that the Panel should recommend that Management Control 3.3.1 better reflect what is being proposed by Petuna.

Reverse osmosis water treatment

The Petuna EIS proposes that freshwater for the treatment of salmon for amoebic gill disease will likely be sourced from reverse osmosis based either at its shore base (at the yet-to-be-finalised location in Electrona), or on a barge at the MFDP area.⁸

The EIS does not detail the likely the impacts of reverse osmosis concentrate disposal on the marine environment or the methods of mitigating these impacts. Furthermore, it does not detail what, if any, other permits or approvals would be required to operate the plant, and if it is to be based on shore, what opportunities there will be for members of the affected community to voice any concerns they may have as to potential noise or other impacts.

The estimation of greenhouse gas emissions associated with its salmon production in section 5.1.15 of the EIS also does not appear to take into account the impacts of operating a reverse osmosis plant which can be highly energy intensive.

Before making any recommendation on the Draft MFDP to the Minister, we submit that the Panel should seriously consider requiring Petuna to provide further information as to these issues so as to ensure all environmental and planning issues have been taken into account.

Marine debris

The Government has committed to enforcing a “zero tolerance” approach to marine debris arising from salmon farms in its *Sustainable Industry Growth Plan for the Salmon Industry* (the **Growth Plan**). The Growth Plan indicates that this zero tolerance approach will be facilitated through the establishment of deadlines for adoption of best practice tracking technologies and other “simple identification” techniques.

In the EIS (at section 5.1.4.4), Petuna has committed to a range of measures it says will ensure that marine debris from the farming will be mitigated, such as through the implementation of a Marine Operations Waste Management Plan to eliminate waste entering the environment, designate chain of responsibility and establish waste monitoring procedures.

In order to implement the aspirations in the Growth Plan and Petuna’s commitments in its EIS, we submit that the Panel should impose specific Management Controls in Draft MFDP that require the Petuna to:

- Use rope that can be clearly identified as originating from leases within the MFDP zone;
- Ensure that its name has been stamped or otherwise marked on equipment used within the zones;
- Install GPS trackers on substantial pieces of equipment that have the potential to break free from the lease.

⁶ Section 2.5.1 of EIS

⁷ In contrast to maximum permissible stocking density of 15kg/m³ in Tassal’s *Tasman Peninsula and Norfolk Bay Marine Farming Development Plan*.

⁸ Section 2.4.4.4 of EIS

Noise

In its EIS (section 5.2.6), Petuna has considered the impacts of noise it generates on onshore residents in the vicinity of its proposed transport routes. We note the inherent limitations of the noise assessment given the uncertainty as to the location of the onshore base.

We urge the Panel to confirm that the EPA intends to impose noise limits on the environmental licence for this MFDP area and that those limits will extend to vessels travelling to and from the MFDP area. If no noise limits are to be imposed on the environmental licence, the Panel should then it to reflect the limits that were modelled by Petuna in the EIS.

We note that industrial marine noise can also significantly impact on a variety of marine fauna (particularly marine mammals that rely on echolocation for migration and feeding). This is recognised at section 5.1.4.4 of the EIS.

Given the intensity of marine farming activities proposed at the MFDP area, and the fact that it is located within the migratory routes of a number of threatened marine mammals, we recommend that the Panel consider imposing a requirement that an environmental baseline be established for aquatic noise at locations within the MFDP area, and at suitable compliance locations. These studies may then be used to inform the development of appropriate mitigation measures to protect these marine fauna from significant impacts from salmon farming activities

Wildlife interactions

We note that Petuna has a plan for the minimisation of seal and bird interactions with its salmon farming operations in Storm Bay. Consistent with the Government's commitment that operators should halt all long-distance seal relocations from salmon farms,⁹ we recommend that the Panel consider imposing the following Management Controls on all the Storm Bay MFDPs:

- no seal relocations from MFDP areas are permitted;
- Lessees must implement best practice environmental management techniques to ensure that wildlife interactions with marine farming equipment and operations are minimised.

Climate Change

Experts agree that the waters of south-eastern Australia, and particularly eastern Tasmania, are experiencing warmer temperatures induced by climate change.¹⁰ These warmer waters may have a variety of impacts on marine farming operations,¹¹ for example, necessitating the increased use of fresh water for bathing, therapeutants and/or antibiotics to combat the increased incidence of disease.¹²

⁹ DPIPWE (2017) *Sustainable Industry Growth Plan for the Salmon Industry* at p.2.

¹⁰ Hobday, A. J., Hartog, J., Middleton, J. F., Teixeira, C. E. Luick, J. Matear, R., Condie, S. (2011). Understanding the biophysical implications of climate change in the southeast: Modelling of physical drivers and future changes. FRDC report 2009/056; and Fisheries Research and Development Corporation. El Nemo South East Australia Fact Sheet: Climate Change. Impact on SE Australian Atlantic Salmon Aquaculture. (2012). Accessed at: <http://www.frdc.com.au/knowledge/Factsheets/FisheriesVic.Salmon4.pdf> on 15 September 2016.

¹¹ Some of these climate change impacts have been addressed by Petuna in its EIS at section 5.1.14.

¹² Stephen Battaglione, Pheroze Jungalwalla, Barbara Nowak, Zoe Doubleday (2011). "Atlantic Salmon, individual species assessment", In: Pecl GT, Doubleday Z, Ward T, Clarke S, Day J, Dixon C, Frusher S, Gibbs P, Hobday A, Hutchinson N, Jennings S, Jones K, Li X, Spooner D, and Stoklosa R. *Risk Assessment of Impacts of Climate Change for Key Marine Species in South Eastern Australia*. Fisheries Research and Development Corporation, Project 2009/070.

Climate change is also likely to affect some of the variables (such as the current, temperature and biological productivity of waters) in the hydrodynamic and DEPOMOD modelling used to forecast the environmental impacts of marine farming within the MFDP area and greater Storm Bay.

In deciding whether to approve the Draft MFDP, we ask the Panel to consider whether the modelling referred to in the EIS demonstrates that marine farming in the MFDP area is sustainable in forecast climate change scenarios. If the modelling referred to in the EIS does not address likely climate change scenarios, then we suggest that the Panel impose a Management Control requiring Petuna to engage a suitably qualified expert to undertake this modelling before the commencement of salmon farming in the MFDP area.

General comments

- EDO Tasmania is supportive of the establishment of a Broadscale Environmental Monitoring Program (BEMP) in Storm Bay to ensure that the cumulative effects of the expansion of marine farming in the Bay are monitored, and to validate the biogeochemical and hydrodynamic modelling being undertaken to inform the proposed Storm Bay expansion. We note that the IMAS evaluation of BEMP data for the Huon Estuary and D'Entrecasteaux Channel was hampered by a lack of baseline data for key parameters in certain locations. We therefore recommend that the Panel impose a Management Control that requires that salmon farming not commence until environmental baseline data for all the key parameters identified by EPA/IMAS/CSIRO for the BEMP has been obtained. This is particularly important for this Draft MFDP, as it appears that much of the baseline data has been extrapolated from monitoring locations outside of the MFDP area.
- We recommend that the Panel investigate the fish welfare and environmental implications of the failure of pens proposed to be used by Petuna in light of the recent failure of Huon Aquaculture's "fortress pens" in Port Stephens.¹³
- The Government has committed to the establishment of an independent web portal, hosted by IMAS, to provide access to relevant salmon farming environmental and production data.¹⁴ We encourage the Panel to consider whether there are any amendments that should be made to the Management Controls the Draft MFDP in order to facilitate the provision of environmental monitoring data to IMAS.

Thank you for the opportunity to provide these comments. We would welcome the opportunity to respond to any questions the Panel may have in relation to the issues raised in this submission.

Yours sincerely,

Environmental Defenders Office

Per:



Claire Bookless
Lawyer

¹³ Sydney Morning Herald "15,000 'ravenous' kingfish still on the loose after Port Stephens fish farm failure" accessed on 7 February 2018, at:

<http://www.smh.com.au/nsw/15000-ravenous-kingfish-still-on-the-loose-after-port-stephens-fish-farm-failure-20180207-h0vm38.html>

¹⁴ DPIW (2017) *Sustainable Industry Growth Plan for the Salmon Industry* at p.21.