

29 November 2019

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(Former member of the Marine Farming Planning Review Panel, appointed as the person with an expertise in environmental management)

Mr Stuart Wright

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Parliament House, Hobart 7000

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Dear Mr Wright

I would like to make a submission to the Inquiry into the Fin Fish Farming in Tasmania in reference to term 2(c). I have also made a joint submission with Professor Barbara Nowak, but this additional submission relates specifically to the aspect of 'adaptive management' that I feel strongly about. Adaptive management has failed in Macquarie Harbour and is an inadequate management strategy that is out of step with contemporary industrial operational practices.

As noted in the other submission, Barbara and I were former members of the Marine Farming Planning Review Panel but resigned in August 2018 after our significant efforts to achieve better outcomes for both industry and the Tasmanian community failed.

Adaptive management means taking operational actions in response to unforeseen changes. All developments, whether land or marine based, are subject to some uncertainties based on the dynamic nature of environmental systems and there is a place for adaptive management. However, it cannot be the whole strategy and does not replace sound science and planning for foreseeable events. Adaptive management relies on:

- reasonable understanding of the receiving environment at the outset (e.g. collection of baseline data, applicable reference sites, biogeochemical modelling)
- understanding of what standards or natural values are to be protected
- monitoring on a frequency and scale necessary to detect deviations
- timely reporting and analysis of data so that management decisions can be made
- appropriate and timely operational response
- monitoring of recovery prior to any further site use; and
- acceptance (or at least tolerance) of issues when they do arise.

Adaptive management can be used to allow flexibility of resource management where it is beneficial to proceed with an activity but not all information is known about the receiving environment or impacts. However, it has been used inappropriately to progress developments for which key aspects have not been resolved. In the case of massive expansion in Storm Bay, these developments have proceeded without: completed biogeochemical modelling; no biosecurity plan; no Regulatory standard to which operations will be held to; and no mapping of natural values to provide clarity on what needs to be protected.

Whilst operators identify and respond to issues throughout the life of their activities, adaptive management should only be necessary where adequate science cannot be completed and to address

changes that were not reasonably foreseeable. In the case of Storm Bay, developers have advised that these proposals were many years in the making. The State has also issued the Salmon Growth Plan with clear objectives to expand. There was adequate time to address data gaps and develop plans to prevent or recover from plausible event scenarios (e.g. change in dissolved oxygen levels, major fish kills, jellyfish bloom, eutrophication). This has not happened. Despite clear and known scenarios for environmental harm and fish kills the operational plans have been non-existent or grossly inadequate. No plans were submitted that were of an adequate level of detail and, in the case of biosecurity and waste management, no plans existed at all. Regardless the developments have been approved. The question is why adaptive management is relied upon so much?

I am a person who gets directly involved in issues that interest or concern me to rather than agitating from afar. I am also a pragmatist and believe we can balance environmental and economic goals. I joined the Marine Farming Planning Review Panel to ensure due diligence in advice and decision-making. I personally verified information and data provided and delved into Regulatory history to ensure advice to determine whether operators had earned the right to grow. This assurance process led me to identify extremely concerning information and the only reasonable view I could form was that Storm Bay developments should not proceed as proposed. Regardless I was unable to influence some other Panel Members who advised it was "too late to raise issues". Professor Barbara Nowak and I were disappointed that we were not able to affect the changes necessary to ensure sustainable growth in the salmon industry. Panel members were either openly dismissive of our concerns or silent. There was no interest in learning from past lived experience in Macquarie Harbour and moving the industry closer to best practice.

In summary:

- Adaptive management relies on close monitoring of key parameters and appropriate trigger points for action and swift operational response. This is proven to have failed and Macquarie Harbour. From receipt of a sample of concern to an operational action took anywhere up to 8 months. This is grossly inadequate.
- Adaptive management relies on planning for plausible event scenarios and having adequate monitoring, response and recovery plans. This has not been satisfied in proposals, yet they have been approved regardless.
- Adaptive management relies on strong and clear Regulation and community tolerance. No Regulatory standard exists for the salmon industry, and there is no current social license for Storm Bay expansion.
- If we continue on this path the industry will crash and the impacts will be borne by the broader Tasmanian community, not just operators.
- Sound science and planning for known and plausible scenarios should be a mandatory requirement for development applications rather than the standard default to adaptive management as the strategy.

I would be happy to provide further information as required.

Yours Sincerely



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