

To Christin Atchinson, Waikato Regional Council
From Dr Hilke Giles, Pisces Consulting
Date 26 July 2024
Subject Peer review of the further information on seabirds provided by North Western Mussels Limited
WRC Reference APP145770

As requested, I have reviewed the further information provided in a letter by Wildlands dated 31 May 2024 (*Wildlands letter*).

Consistent with your suggestion¹, the letter by Wildlands provides a table (Table 1) listing bird species selected "due to Threat Classification, as determined by Robertson et al. (2021), presence within the area as determined by the eBird desktop survey and fisheries observation records, and foraging/diving behaviour (entanglement and/or ingestion of foreign objects), breeding/roosting behaviour (disturbance and noise), and visual spectrum (attraction to lighting)"².

For each species, Wildlands describe the behaviour that makes it vulnerable to threats. The term 'threat' is used in place of the previously used³ term 'potential effect'. Threats listed in Table 1 are consistent with the potential effects described in the previous effects assessments and reflect your suggested column 'potential impact / consequence'.

For each At Risk or Threatened species and potential effect (or threat) combination, Wildlands provide a risk assessment without mitigation, describe recommended mitigations, and then derive a level of adverse effect after mitigation using RMA terminology. Again, this is consistent with your suggestion.

For each mitigation, Table 1 states that the applicant has proposed the mitigation. I interpret that as meaning that the applicant is committed to implementing the mitigation measure. The recommended mitigation measures are:

- Ensure that loss of debris is minimised and where at all possible retrieved. All rubbish/debris from the marine farm and service vessels shall be disposed of in an appropriate manner on land.
- Maintenance and harvest work to only occur during daylight hours.
- Maintenance programme to tighten ropes and fittings, replace worn ropes, fix or replace buoys, and inspect and tighten anchor ropes. Ensure there are no loose lines or debris accumulating around buoys or ropes from other sources (e.g. fishing lines or plastic rubbish).
- Maritime rules require vessels to reduce speed to less than five knots within 200 metres of the shore. Vessels servicing the spat farm should avoid rock stacks, islets and islands where bird's breed. Disturbance and noise during harvesting activity will either attract birds (e.g. gulls and shags) which will forage behind the vessel. Other seabird species may choose to forage away from the activity.

¹ In your email to Rebecca Clarkson dated 22 April 2024.

² Wildlands letter, p. 2.

³ In the 2022 assessment of effects by Wildlands and the letter by Wildlands dated 13 February 2024.

I agree that these are best practice mitigation measures. I also agree with Dr Bennet's reasoning under point 3 of the Wildland's letter that, with the proposed mitigation measures in place, the spat-catching/nursery operation will not pose a greater risk to seabirds than a mussel farm.

It will be important that these mitigations are recorded in a seabird management plan and that the plan is made available to all marine farm staff. The seabird management plan will also need to include additional practices related to incident recording⁴ and staff training to ensure that mitigation measures can be effectively implemented.

It is not entirely clear to me how Wildlands have determined the level of adverse effect after mitigation as the level descriptors provided under point 2 are generic⁵ and do not refer to specific factors relevant to birds, such as potential population effects or matters of scale. However, relying on the expertise of Dr Bennet and based on my agreement that the mitigation measures reflect best practice, I am confident that adverse effects on birds have been adequately assessed and will be appropriately managed under the proposal.

Based on the description of seabird surveys under point 4, it appears that these are not proposed as part of mitigation measures or monitoring, but proactive actions aimed at collecting data to confirm the effects assessment outcomes and inform future responses to seabird incidents, should they arise. In this context, I consider Dr Bennet's response to your question adequate. As the surveys are not addressing potential effects of concern or specific uncertainties in the assessment, I recommend that they are not included in consent conditions.

In conclusion, the queries I had raised in relation to seabirds have now been satisfied.

⁴ For example, the A+ Sustainable Management Framework for New Zealand Greenshell Mussels requires that all incidences of seabirds becoming entangled in or observed to be affected by ingestion of marine farming equipment, lines, or debris are recorded.

⁵ They appear to be the descriptors previously used on the Quality Planning website.