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About us

Bioprotection Aotearoa (BA) is a National Centre of Research Excellence (CoRE). Hosted by Lincoln University, the centre is a collaborative partnership between seven universities and four Crown Research Institutes: the University of Auckland, Waikato University, Massey University, Victoria University of Wellington, University of Canterbury, University of Otago, AgResearch, Plant & Food Research, Scion, and Manaaki Whenua – Landcare Research.

We exist to train future bioprotection leaders and deliver pioneering, multi-disciplinary research that addresses the environmental challenges facing Aotearoa New Zealand and the Pacific.

We draw on our collective academic strengths to develop new and innovative solutions that protect our productive and natural landscapes from pathogens, pests, and weeds in a warming climate.

Our kaupapa (principles) is guided by a unique framework that incorporates both *mātauranga Māori* (Māori knowledge) and science. This framework, *Te Taiao-a-rangi*, supports a holistic, systems-level approach to achieving intergenerational environmental sustainability.

Our stance

Rather than provide feedback in response to questions 1-4, Bioprotection Aotearoa would like to specifically address question 5, and provide points for consideration based on our collective experience in ecology, landscapes, and climate expertise.

It is from this perspective that Early Career Researchers (ECRs) from Bioprotection Aotearoa came together to discuss the key issues outlined in the discussion document, *Managing our wetlands in the coastal marine area*.

Bioprotection Aotearoa has outlined three areas of concern that may be useful when the Ministry for the Environment is considering the proposed options, which include the response towards

climate change, the definition of wetlands, and the potential risk of alleviating the coastal marine wetlands from the NES-F.

1. **Adaptation response to climate change.** Typically, decision-making around policies focuses on permanence and absolute options. As such, environmental, ecological, and land-use policies are more likely to collapse due to the unpredictability of climate change. Bioprotection Aotearoa suggests there is a need to establish a flexible socio-environmental framework that considers the dynamic environmental outcomes that pertain to inland wetlands and coastal wetlands[1, 2].

2. **A coherent definition for Coastal Marine Area (CMA) wetland.** The lack of clarity in what defines a wetland, is a major concern for the ECRs of Bioprotection Aotearoa. It is important to avoid creating an umbrella term that groups inland and coastal wetlands together, as both the inland freshwater wetlands and coastal marine wetlands provide different ecological functions [3]. Therefore, we suggest when considering a system of guidelines within policy, the two different wetlands should be defined separately to achieve outcomes favourable for both facets of inland wetland and CMA wetland.

3. **Potential risk around Option 2.** For option 2, the discussion document states, "Wetlands in the CMA would continue to be managed through the NZCPS, existing coastal plans, and section 12 of the RMA." Are these frameworks sufficient to protect the CMA wetlands while a new work programme is being considered to specifically protect the coastal wetlands? With this process, we foresee the potential risk for developers to exploit loopholes that will allow the development of CMA wetlands due to
    a. The insufficient protections offered by the NZCPS and section 12 of the RMA, and
    b. the time it would take to consider and introduce a new work programme to specifically protect the CMA wetlands

Reference

[1]Fankhauser S., Smith J., Tol R. (1999). Weathering climate change: some simple rules to guide adaptation decisions. *Ecological Economics*, *30*, 67-78.

[2]Nyman, J. A. (2011). Ecological functions of wetlands. *In Wetlands*, 115-128

[3]Davidson, N. C., Van Dam, A. A., Finlayson, C. M., McInnes, R. J. (2019) Worth of wetlands: revised global monetary values of coastal and inland wetland ecosystem services. *Marine and Freshwater Research*, *70*(8), 1189-1194.