

Before the Fast-track Panel

Under: The Fast-track Approvals Act 2024

In the matter of: FTAA-2603-1181 Mt Welcome, Pukerua Bay, Porirua

Statement of advice

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Department of
Conservation
Te Papa Atawhai

**Te Kāwanatanga
o Aotearoa**
New Zealand Government

Introduction

1. My full name is Dr Kathryn Elizabeth Collins.

Instruction

2. I have been asked to provide expert advice on behalf of the Department of Conservation on the Mt Welcome – Fast-track application.

Qualification and Experience

3. I hold a PhD in Biological Sciences from the University of Canterbury (2019), a Master of Resource Studies with first class honours (2012) and a Bachelor of Environmental Management (2009) both from Lincoln University.
4. I am employed as a Senior Science Advisor in the Freshwater Ecosystem and Threats team at the Department of Conservation. I have held this position for 8 years and prior to completing my PhD I worked in environmental strategy and policy at Auckland Council. My work focuses on river and wetland restoration, freshwater biosecurity, fish passage, and aquatic macrophytes. I am a member of the New Zealand Freshwater Sciences Society and am a current NZFSS executive committee member.

Code of conduct

5. Whilst it is acknowledged this is not an Environment Court Proceeding; I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023. I have complied with the Code of Conduct in the preparation of this advice. Unless I state otherwise, this assessment is within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Scope of advice and expert opinion

6. My expert advice will address the following matters:
 - a. Freshwater values at the site
 - b. Inclusion of pasture wetlands
 - c. Inadequacy of fish survey
 - d. Longfin eel threat status
 - e. Fish passage concerns
 - f. State Highway 59 roundabout
 - g. Proposed offsetting approach
 - h. Inappropriate application of the EIANZ Guidelines
 - i. Application of the Stream Ecological Valuation methodology

Sources

7. In preparing this evidence I have reviewed:

- a. Mt Welcome Substantive Application section 7.10 Standard and complex freshwater fisheries activity and section 17 Information required in application including standard or complex freshwater fisheries activity.
- b. Stormwater Management Plan provided as Appendix 11 – Part A of the Substantive Application.
- c. Ecological Assessment provided as Appendix 15 of the Substantive Application.
- d. Fish Management Plan provided as Appendix 3 of the Ecological Assessment.
- e. Sheet 1753-02-SK8440 provided as Appendix 30 of the Substantive Application.
- f. Information Request Memorandum on Complex Freshwater Fisheries Activities provided to DOC on 18 June 2026 (also Appendix B of Updated document bundle provided to DOC on 2 July 2026).
- g. Updated Proposed Conditions submitted as Appendix A of Updated document bundle provided to DOC on 2 July 2026.
- h. Memorandum from the applicant in response to Minute 2 (2 July 2026).
- i. Statements of Evidence of Dr Gareth Taylor (Stream Ecology), Melanie Dixon (Wetland Ecology) and James Blyth (Hydrology) on behalf of Greater Wellington Regional Council.

Summary

8. Freshwater values at the site are downplayed, reducing the magnitude of the values that may be lost, and hence the offsetting required to compensate for the loss.
9. Exclusion of pasture wetlands is not consistent with the Ministry for the Environment guidance, 0.631 ha of pasture-dominated wetland must also be included in the loss of wetland extent as a result of the development and therefore requires offsetting.
10. I do not consider the fish survey undertaken to date by the applicant to be sufficient to rule out fish being present in these waterways. Consequently, fish presence may be more widespread and/or species more abundant than the findings of the Ecological Assessment, given the limited sampling effort.
11. Longfin eel is currently assessed as At Risk – Declining in the NZTCS.
12. Fish passage must be provided for, regardless of any downstream fish passage barriers. This is also impacted by the insufficient fish survey to rule out fish species being present.
13. The stream reclamation required for the State Highway 59 roundabout is undesirable and should be avoided if possible.

14. The proposed offsetting approach proposes non like-for-like habitats in offsetting, changing from riverine and natural inland wetland habitats to retention wetland habitats.
15. The Ecological Assessment inappropriately applies the EIANZ Guidelines at the catchment level, not the site level, understating the level of ecological effect.
16. The Ecological Assessment implies the Stream Ecological Valuation methodology was used, however they were not actually calculated using the formally published and agreed methodology. This is inappropriate.

Discussion

Freshwater values at the site

17. The Applicant's Ecological Assessment downplays the current values of the streams and wetlands present at the site.
18. The streams and wetlands proposed to be impacted by the development are showing typical signs of impairment associated with rural land management practices. These effects are reversible; therefore, they have potential values that could be realised by improved land management. Potential values have not been considered by the applicant in their assessment. This reduces the magnitude of the values that may be lost, and hence the offsetting required to compensate for the loss.
19. Many of the wetlands and streams that will be impacted by the development are headwater in nature. While they might be small and degraded at this site, they are still important and feed into valued habitats such as the Taupō Swamp, Muri Road Wetland and Pauatahanui Inlet.
20. New Zealand has lost an estimated 90% of its wetland extent since human settlement¹, less than 3% of wetlands remain in the Greater Wellington Region², thus, any further loss of wetland extent is of concern.

Pasture wetlands

21. The Ecological Assessment states that following vegetation plots, 0.631 ha of wetland area was excluded by pastoral exclusion rule (Ecological Assessment, Table 1).
22. This is not consistent with the Ministry for the Environment guidance³:

"The purpose of the NPS-FM pasture exclusion clause is to support the continuing use of pasture for grazing purposes.

The exclusion is not targeted at pasture being converted for urban development or for other land uses."

¹ Applying systematic conservation planning principles to palustrine and inland saline wetlands of New Zealand

² [Wetland ecosystems of national importance for biodiversity: Criteria, methods and candidate list of nationally important inland wetlands](#)

³ [Pasture exclusion assessment methodology](#)

23. Therefore, I agree with the evidence of Melanie Dixon for Greater Wellington Regional Council, who states at paragraphs 5-6 that this 0.631 ha of pasture-dominated wetland must also be included in the loss of wetland extent as a result of the development and therefore requires offsetting.

Fish survey

24. I do not consider the fish survey undertaken to date by the applicant to be sufficient to rule out fish being present in these waterways. Two single eDNA samples and one night spotlighting at low flows is insufficient to describe the fish populations over a large site. For eDNA sampling best practice methods established by a collaborative regional council study recommended six sample replicates of 1 L volume should be used per site to give optimal detection rates for fish and macroinvertebrates⁴. I accept that some waterbodies at the site are not suitable for electric fishing or netting, however, I do think further survey effort is warranted. Further fish sampling using a variety of methods e.g. gee minnow traps, fyke netting, spotlighting, should be undertaken under normal baseflow conditions to better understand the fish assemblage present. A replicated wider spatial scale eDNA survey would also be beneficial.
25. Table 3 of the applicants Ecological Assessment notes fish species recorded or likely to be present based on information from the New Zealand Freshwater Fish Database and other reports for the site. However, records from the New Zealand Freshwater Fish Database are over 40 years old; and no location or collection data is provided for the 2021 Boffa Miskell surveys. While this information helps provide context, its age and lack of spatial information means it is not useful for providing a recent understanding of the fish species present at the site.
26. Consequently, given the limited sampling effort, fish presence may be more widespread and/or species more abundant than the findings of the Ecological Assessment.

Longfin eel threat status

27. The Ecological Assessment states the threat status of the longfin eel is “*currently under debate*”.
28. The NZ Threat Classification System complements the world view provided by the IUCN Red Lists. DOC is accountable for ensuring that listings are carried out. Assessments are made based on independent expert panels for individual taxa.
29. Longfin eel is currently assessed as At Risk – Declining⁵ as a 10-70% decline in the total population due to existing threats over the next three generations.
30. The presence of long fin eel raises ecological values because of this.

Fish passage

31. There are currently several fish passage barriers downstream of the site (outside the project footprint). The applicant has stated that the presence of these barriers is a reason

⁴ NIWA eDNA protocols

⁵ [Conservation status of New Zealand freshwater fishes, 2023](#)

for not providing fish passage at some of the structures on the site. A lack of fish passage downstream is not an appropriate circumstance for not providing for fish passage at any structures put in place as part of the development. If the downstream barriers were to be remediated, that could open up the waterways and habitat upstream, however, if the applicants proposed fish passage barriers are enacted, this would further restrict available habitat for the species present. The applicant could consider remediating the downstream fish passage barriers as part of their remediation package to offset the residual effects from the project.

32. Regulation 70(2)(a) of the NES-F requires that *“the culvert must provide for the same passage of fish upstream and downstream as would exist without the culvert,…”*. Thus, I believe that the presence of any non-natural barriers downstream of the site are not a relevant consideration to not providing fish passage past structures within the site.
33. In addition to allowing fish passage to and from the coast, the construction of structures that do not provide for fish passage also does not allow fish (or invertebrate) movement within the reach or the site for example, any species already present in the vicinity of the structure would be unable to access habitat upstream of the barriers.
34. In my opinion, it would be best practice for all culverts, including those related to the wetland retention ponds, to provide for fish passage in accordance with the New Zealand Fish Passage Guidelines⁶ (2024). Note: the Ecological Assessment refers to the 2018 version of the Fish Passage Guidelines, this version has been superseded by the 2024 version.

State Highway 59 roundabout

35. A two-lane roundabout is proposed to be installed at the State Highway 59 intersection with the site, to allow for road access.
36. This involves the reclamation of 110m of a tributary to Taupō Stream by way of culvert installation. *“The addition of a roundabout on SH 59 will require that the Taupo stream be culverted as there is no room and appropriate gradients to allow a realignment around the roundabout (the preferred option).”*
37. Reclamation and culverting of the tributary of Taupō Stream, would result in the permanent loss of stream bed and the ecology values present. I consider that a stream diversion would avoid the loss of the stream bed and values and would lead to a better ecological outcome for freshwater biodiversity.

Proposed offsetting approach

38. The NPSFM includes Principles for aquatic offsetting in appendix 6. One of the principles is:

“No net loss and preferably a net gain: This is demonstrated by a like-for-like quantitative loss/gain calculation, and is achieved when the extent or values gained at the offset site (measured by type, amount and condition) are equivalent to or exceed those being lost at the impact site”.

⁶ New Zealand Fish Passage Guidelines Version 2.0

39. This proposal extensively proposes non like-for-like habitats in offsetting, changing from riverine and natural inland wetland habitats to retention wetland habitats.
40. Furthermore, I question the appropriateness of offering “retention wetlands” as compensation. The purpose of these wetlands is for stormwater retention and to deal with flood flows rather than for biodiversity values.
41. I agree with the concerns raised by Greater Wellington Regional Council’s experts around likely water depth and water quality concerns in the retention wetlands, and the challenging conditions for successful establishment of wetland plants. I support Melanie Dixon’s summary in paragraph 1 of her evidence, that states the application *“has not demonstrated “retention wetlands” can successfully remediate and offset wetland loss (or at least not to the extent claimed)”*, and that conditions should be imposed to secure no net loss of wetland extent, as well as providing clear separation between ecological and stormwater functions in retention wetlands.
42. In addition, I agree with Dr Gareth Taylor’s recommendation, in paragraph 8 of his evidence, he states that *“Should the Panel choose to grant the application, conditions should require that the wetlands perform within expected parameters, given they are intended to remediate stream loss and should not have downstream effects. In particular, conditions would need to ensure that water quality and habitat are of suitable quality and quantum to provide for fish and aquatic biota within the retention wetlands.”*

Use of the EIANZ Guidelines

43. Section 5.2 of the Ecological Assessment uses the EIANZ guidelines for assessing the level of ecological effects:

“The magnitude of the effect of the loss of gully wetland in each main catchment is considered as a proportion of the similar or better habitat within the Taupo swamp catchments between Plimmerton and Pukerua Bay for the western draining systems, and in the Kakaho west and Kakaho east for those systems.”

44. The Ecological Assessment assesses the value of the wetlands are low to negligible (Section 4.2) and the level of effect associated is very low in terms of the EIANZ guidelines.
45. By comparing the loss of habitat within each main catchment, the magnitude of the impact at the site is minimised. In contrast, the EIANZ Guidelines explicitly refer to ‘site’ when describing criteria for magnitude of effect.
46. The Department has discussed the applicant’s approach of applying the EIANZ ‘Ecological Impact Assessment (ECIA): Guidelines for use in NZ’ with Dr Ian Boothroyd (Vice President and Board Member of EIANZ) in relation to the Brynderwyn Hills application by the NZTA (FTAA-2603-1178)⁷. Dr Boothroyd emphasised that:

“these are ‘guidelines’ designed to provide a helpful and consistent framework for assessing ecological effects. Of concern to EIANZ is the misrepresentation of the appropriate scale or zone of influence for assessments of effects. The guidelines are

⁷ [DOC Memo to Convener re Minute 3 Brynderwyn Hills Application](#)

clear in that the zone of influence¹ is the scale for consideration and would include all features impacted. Amplifying the assessment of impact to a broader and much larger scale misrepresents and incorrectly minimises the magnitude of impact. EIANZ recognises that the broader landscape or catchment scale can be helpful in contextualising the features being impacted but such broad definitions of the zone of influence does not represent the scale for assessing the level and magnitude of impact. The guidelines are clear that the level and magnitude of effect should be addressed to the scale of values assessment e.g., ecological values at the stream reach(es) level (i.e., zone of influence) and not application at the catchment scale.

¹Zone of Influence = the areas/resources that may be affected by the biophysical changes caused by the proposed project and associated activities. The ZOI refers to all land, water bodies and receiving environments that could be potentially impacted by the project. It includes the Project Site and any environments beyond the Project Site where 'indirect effects' such as discharges may extend."

47. I agree with Melanie Dixon's values assessment in her evidence, where she reapplies the EIANZ methodology. This finds the level of ecological effect for wetlands in the Taupō, Kakaho West and East sub-catchments to be moderate; and low in the Muri catchment, and the pasture wetlands in the Taupō sub-catchment. This finds that the adverse effects on wetlands are more than minor and do require offsetting.

Application of Stream Ecological Valuation Methodology

48. The Stream Ecological Valuation method⁸ (SEV) is a comprehensive method used to assess stream health, function and biodiversity. From this evaluation, it is possible to calculate an Environmental Compensation Ratio (ECR) to determine the amount of offset required when a stream is impacted by development.
49. In the Ecological Assessment, SEV values are given in several places as "*most likely to be*" but they were not actually calculated using the formally published and agreed methodology. I agree with Dr Gareth Taylor's assessment in paragraph 10 of his evidence, that "*this is not appropriate, as it implies the methodology has been undertaken to quantify values and compensation requirements, when it has not.*"
50. Additionally, in several places a Macroinvertebrate Community Index (MCI) score is given as an "*observation*", or "*expected*" while no macroinvertebrate samples were collected as part of the report. This is unscientific and not accepted practice.

⁸ Auckland Council Technical Report No. 2011/009

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