

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

Dr Kathryn Collins

Freshwater Ecology

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13 July 2026



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 in relation to Complex Freshwater Fisheries Activities.

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) The alignment of the proposed activity with best practice and the New Zealand Fish Passage Guidelines; and
 - (b) The management of risks to freshwater values or habitat, including prevention of access to or spread of invasive species; and
 - (c) The availability and quality of the habitat upstream and downstream from the proposed activity; and
 - (d) The presence of threatened, data-deficient, or at-risk species under the New Zealand Threat Classification System in the vicinity of the proposed activity; and
 - (e) The advantages and disadvantages of providing fish passage upstream or downstream of the proposed activity; and

- (f) Any conditions that should be imposed in accordance with clause 6 or section 84 of the Fast-Track Approvals Act.

Sources

7. In preparing this advice 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).

Discussion

(a) The alignment of the proposed activity with best practice and the New Zealand Fish Passage Guidelines

- 8. The project is proposing to construct five permanent dams which is a 'complex freshwater fisheries activity' under (b) of the definition in Section 4 of the FTAA.
- 9. The construction of the five permanent dams are to form the retention wetlands (A-E in Figure 1).

Retention Wetland ID	Function	Catchment
A	Attenuation / Retention	T1
B	Attenuation / Retention	T3
C	Attenuation / Retention	T3
D	Attenuation	Muri
E	Attenuation / Retention	K1 / K2



Figure 1: Retention wetland locations. (Source: Information Request Memorandum on Complex Freshwater Fisheries Activities provided to DOC on 18 June 2026).

10. In addition, Culverts P-36 (Retention Wetland C), P37 (Retention Wetland A) and P-39 (upgrade for existing culvert E-18) do not provide for fish passage as the applicant states there are no fish present in these waterways (Figure 2). These are therefore complex freshwater fisheries activities under the Fast-Track Act definition as “(a) a culvert or ford that permanently blocks fish passage”.



Figure 2: Proposed culverts, those not providing fish passage highlighted in yellow. (Source: Information Request Memorandum on Complex Freshwater Fisheries Activities provided to DOC on 18 June 2026).

Table 1: Further information on complex freshwater fisheries activities. (Source: Simplified from Information Request Memorandum on Complex Freshwater Fisheries Activities provided to DOC on 18 June 2026).

Structure	Retention Wetland A and culvert P-37 (Outlet to Wetland A)	Retention Wetland B	Retention Wetland C and culvert P-36 (Outlet to Wetland C)	Retention Wetland D	Retention Wetland E and culvert P-40 (Outlet to Wetland A ¹)	Culvert P-39 (upgrade for existing culvert E-18)
(b) the freshwater species and values present (with particular focus on threatened, data-deficient, and at-risk species as defined in the	No fish are present in this waterway confirmed with eDNA and night spotting (section 3.4.1, 5.3, Appendix 3 of the Ecological Assessment).	Fish values are set out in the Ecological Assessment in Appendix 15, the eDNA indicates the presence of banded kokopu and	No fish present. There is no consistent flow at this location, it is ephemeral following rainfall.	No fish present. There is no consistent flow at this location, it is ephemeral following rainfall.	Fish values are set out in the Ecological Assessment in Appendix 15, likely shot ² and long fin eel, banded kokopu,	No fish present. There is no consistent flow at this location, it is ephemeral following rainfall. Recent

¹ I am unsure if this is correct, I believe it should read Outlet to Wetland E based on the location of culvert P-40

² Typo, short fin eel

New Zealand Threat Classification System):		long and short fin eel in catchment (section 3.4.1).			common bully and redfin bully (section 3.4.2.3 in Table 3).	spot lighting revealed no fish in tributary of P39.
Catchment	Taupō Stream	Taupō Stream	Taupō Stream	Waimapihi Stream	Kākaho West Stream	Kākaho West Stream
How the passage of fish will be provided for or impeded	Note that Culvert P37 (Retention Wetland A) will not provide for fish passage as there are no fish present in waterway.	Culvert P-35 (Outlet to Wetland B) will provide for fish passage. Design outlined in SMP see: • Section 6.13 for description of fish passage design • Appendix 1 sheet 1753-02 4904 which shows design of outlet with fish passage Specific fish passage design details will be developed and finalised during the detailed design phase through condition of consent (PCC condition 27 and GWRC condition 59).	Culvert P-36 (Outlet to Wetland C) will not provide for fish passage as there are no fish present in waterway.	Retention Wetland D will not provide for fish passage as there are no fish present in waterway.	Culvert P-40 (Outlet to Wetland A ³) will provide for fish passage. Design is outlined in SMP see: • Section 6.13 for description of fish passage design • Appendix 1 sheet 1753-02 4904 which shows design of outlet with fish passage Specific fish passage design details will be developed and finalised during the detailed design phase through condition of consent (PCC condition 27 and GWRC condition 59).	Culvert P39 will not provide for fish passage as there are no fish present in waterway.

11. Based on the information in Table 1, my understanding is that the applicant is proposing **not to** provide fish passage into/out of retention wetlands A, C, D and culvert P-39.

12. Permanent dams will also be constructed at retention wetlands B and E, however, fish passage will be provided past the dams through the associated culverts. The following assessment is based on that understanding.

³ Again, I believe it should read Outlet to Wetland E

13. It would be best practice for the structures at retention wetlands A, C, D and culvert P-39 to provide fish passage (unless there are exceptional circumstances), therefore what is proposed is not in alignment with the New Zealand Fish Passage Guidelines.
14. 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 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.
15. 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, 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.
16. 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.
17. 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 Guidelines (2024).
18. 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. 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 should be undertaken under normal baseflow conditions. A replicated wider spatial scale eDNA survey would be beneficial.
19. The creation of “retention wetlands” is included as part of the offset package offered by the applicant. The Ecological Assessment suggests that these will have “better aquatic habitat” than what is currently present. *“The retention areas proposed are designed to contain (except perhaps under the driest annual conditions) permanent water and extensive reedland, rushland and sedgeland wetlands (more than 12,040m²). Under such a scenario the aquatic habitat potential will be very much greater (70 times more) than the habitat of the current stock pugged, sedimented, highly eroded minimal water depth,*

⁴ NIWA eDNA protocols

*channels that currently form the streams (ca. 450m)*⁵. Fish passage to these areas must be provided for the habitat to be available.

(b) The management of risks to freshwater values or habitat, including prevention of access to or spread of invasive species

20. The Ecological Assessment includes a Fish Management Plan, however, significant detail is lacking.
21. As above, fish presence may be more widespread or abundant than the findings of the ecological assessment given the limited sampling effort. Therefore, to reduce stranding risk, it is recommended that fish salvage be undertaken in any waterway on the site.
22. Additionally, any relocation of fish from the site should ensure they stay within the same catchment, i.e. fish from within the Taupō Stream stay within the Taupō catchment and fish within the West Kāhaho Stream stay within the Kāhaho catchment. If fish are moved between catchments or to a site where they do not currently exist, the applicant will need to ensure all appropriate permits are obtained.
23. In relation to the spread of invasive species, the Fish Management Plan states “All equipment will be thoroughly cleaned and dried prior to their use. Equipment includes but not limited to; electric fishing machine, waders, fyke nets, gee minnow traps and transfer buckets. Any pest fish caught will be humanely euthanized and all euthanized pest fish will be disposed of in a bio secure manner to land”. The applicant should follow the MPI Check Clean Dry gold clam inclusive method⁶ to ensure the risk of spreading invasive species is appropriately minimised.

(c) The availability and quality of the habitat upstream and downstream from the proposed activity

24. 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.
25. 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.
26. 2,100m² of retention wetland with permanent water will be created in Retention Wetlands A, C and D that will be inaccessible to fish (Table 2).

⁵ Ecological Assessment, pages 39-40

⁶ [Check Clean Dry for the North Island | NZ Government](#)

Table 2: Retention Wetland size. (Source: Simplified from Table 6 of Stormwater Management Plan).

	Permanent water area (m ²)
Retention Wetland A	1,020
Retention Wetland C	880
Retention Wetland D	200
Total permanent water area of retention wetland created inaccessible to fish	2,100

27. Centre line mapping based on aerial photography and topographic maps indicate there is approximately 450 m of waterway upstream of culvert P-39. This is in the upper reaches of the Kākaho West Stream which is likely to be intermittent and ephemerally flowing.

(d) The presence of threatened, data-deficient, or at-risk species under the New Zealand Threat Classification System in the vicinity of the proposed activity

28. As above, fish presence may be more widespread or and species more abundant than the findings of the ecological assessment, given the limited sampling effort.

29. The two eDNA samples showed presence of banded kokopu and short fin and long fin eel in the northern system. The southern system showed short fin eel presence.

30. Table 3 of the ecological assessment notes fish species recorded or likely to be present. However, records from the New Zealand Freshwater Fish Database are over 40 years old; and no location or collection data is provided for 2021 Boffa Miskell surveys.

Table 3: Fish species recorded (p) or likely (x) to be present. (Source: Table 3 of the applicants Ecological Assessment).

Species	Common name	Threat classification	1961	1979	BML 2021	Likely on site
<i>Anguilla australis</i>	Shortfin eel	Not Threatened	p	p	p	x
<i>Anguilla dieffenbachii</i>	Longfin eel	At Risk - Declining	p	p	p	x
<i>Galaxias fasciatus</i>	Banded kōkopu	Not Threatened	p			x
<i>Galaxias maculatus</i>	Inanga	At Risk - Declining	p	p	p	
<i>Gobiomorphus cotidianus</i>	Common bully	Not Threatened		p	p	x
<i>Gobiomorphus gobioides</i>	Giant bully	At Risk - Naturally Uncommon	p			
<i>Gobiomorphus huttoni</i>	Redfin bully	Not Threatened	p	p	p	x

31. The ecological assessment also states that “There is a small likelihood the Threatened - Nationally Vulnerable shortjaw kōkopu (*Galaxias postvectis*) is also present. If so, they are most likely to reside within the remnant indigenous bush in the northeastern corner of the Muri Block (i.e. the SNA)”. There are currently no records of this species within the catchments.

32. In addition to the national threat classification assessment of freshwater fishes, Greater Wellington Regional Council also has undertaken a regional assessment.
33. The Greater Wellington Natural Resources Plan Schedule F1 identifies indigenous fish species recorded within catchments. Taupō Stream and Kākaho Stream have different species recorded. Banded kokopu, inanga, longfin eel, redfin bully and shortfin eel are recorded in both catchments. Giant kokopu are recorded only in the Taupō Stream. Common bully, common smelt, giant bully and grey mullet are recorded only in the Kākaho Stream.

Table 4: Freshwater fish fauna recorded at the site, threat ranking under NZTCS and the Wellington Region ranking, and indigenous fish species recorded within the Taupō and Kākaho catchments from the Greater Wellington Natural Resources Plan Schedule F1.

Name and authority	Common name	NZTCS ranking ⁷	Wellington Region ranking ⁸	Taupō Stream ⁹	Kākaho Stream
<i>Galaxias fasciatus</i> Gray 1842	banded kokopu	Naturally uncommon	Uncommon	X	X
<i>Anguilla dieffenbachii</i> Gray 1842	longfin eel	At risk, declining	Declining	X	X
<i>Anguilla australis</i> Richardson 1841	shortfin eel	Not threatened	Not threatened	X	X
<i>Galaxias argenteus</i> (Gmelin 1789)	giant kokopu	At risk, declining	Vulnerable	X	
<i>Galaxias maculatus</i> (Jenyns 1842)	inanga	Nationally vulnerable	Critical	X	X
<i>Gobiomorphus huttoni</i> (Ogilby 1894)	redfin bully	Naturally uncommon	Not threatened	X	X
<i>Gobiomorphus cotidianus</i> McDowall 1975	common bully	Not threatened	Not threatened		X
<i>Retropinna retropinna</i> (Richardson 1848)	common smelt	At risk, declining	Declining		X

⁷ [Conservation status of New Zealand freshwater fishes, 2023](#)

⁸ [Conservation-status-of-freshwater-fish-in-the-Wellington-region.pdf](#)

⁹ [CORRECT-Natural-Resource-Plan-Operative-Version-2023-incl-maps-compressed.pdf](#)

Gobiomorphus gobioides (Valenciennes 1837)	giant bully	Naturally uncommon	Vulnerable	X
Mugil cephalus Linnaeus 1758	grey mullet	Not threatened	Uncommon	X

(e) The advantages and disadvantages of providing fish passage upstream or downstream of the proposed activity

34. 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 for not providing fish passage at some of the dams and culverts 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. It would be advantageous to allow fish passage as the downstream barriers may be removed in the future. This could open 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 and be a disadvantage for any species using the waterways.
35. The construction of structures that do not provide for fish passage can impact on the ability for any fish (and invertebrate) species that are already present in a given reach of a waterway by restricting fish movement within the reach or the site.
36. Providing fish passage into the retention wetlands would allow a greater area of habitat to be occupied and utilised by fish. The retention wetlands are replacing the existing waterways and will result in a loss of flowing waterway habitat. If the retention wetlands do not allow for fish passage past the culverts and dams, then this additional habitat will not be able to be utilized.

(f) Any conditions that should be imposed in accordance with [clause 6](#) or [section 84](#).

37. I recommend that applicant should follow the good practice design standards as outlined in the NZ Fish Passage Guidelines, in particular setting clear fish passage objectives and performance standards (section 3), incorporating appropriate design standards to provide passage for the target fish species as well as ongoing monitoring (section 8).
38. The applicant has proposed a condition (57 (b)) that states:
- “any structure is designed, constructed and maintained in accordance with the New Zealand Fish Passage Guidelines (NZFPG) (NIWA and DOC, 2018). A design not in accordance with the NZFPG shall require certification from the Manager;”* (Appendix 7, proposed conditions of consent, P. 61).
39. The wording of this condition does not require adherence to the NZ Fish Passage Guidelines in all situations, so there is no certainty that the guidelines will be followed. I would recommend that the guidelines should always be followed except in unique or unusual circumstances rather than at the discretion of ‘the Manager’.
40. The applicant has proposed a condition under the culvert Installation – NES-F requirements stating that:

“Culvert details must be uploaded into the NIWA fish passage Assessment Tool and providing the Manager with the response number once the upload is complete.”
(Appendix 7, proposed conditions of consent, P. 62)

41. I agree with this condition and note that all the culverts and dam structures should be uploaded into the Fish Passage Assessment Tool.
42. Additional conditions that would help manage the risk to freshwater species could include:
- Ongoing monitoring of the success or otherwise of the installed culverts and dams at maintaining fish passage.
 - Additional biosecurity controls in the proposed Fish Management Plan to ensure the MPI Check Clean Dry gold clam inclusive method is followed.
43. As outlined, fish presence may be more widespread or abundant than the findings of the ecological assessment given the limited sampling effort. Therefore, to reduce stranding risk, it is recommended that fish salvage be undertaken in any waterway on site to achieve the stated goal “to minimise the potential effects on native fish prior to and during the removal of their potential habitats as part of the proposed development”.

Conclusion

44. There are currently several fish passage barriers downstream of the site (outside the project footprint). 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.
45. Fish surveys undertaken to date are not sufficient to rule out fish being present in the waterways.
46. It would be best practice for the structures at retention wetlands A, C, D and culvert P-39 to provide fish passage (unless there are exceptional circumstances), therefore what is proposed is not in alignment with the New Zealand Fish Passage Guidelines.

References

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