25 November 2025

Fast-track Approvals Act: Complex freshwater fisheries activity approval report

Section 51(2)(e) complex freshwater fisheries activity approval report for – FTAA-2507-1085 Takitimu North Link – Stage 2

Department of Conservation
Te Papa Atawhai

Te Kāwanatanga o Aotearoa
New Zealand Government

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1. Introduction

1.1 On 1 August 2025, New Zealand Transport Agency Waka Kotahi (NZTA/the applicant) lodged a substantive application with the Environmental Protection Authority (EPA) for Takitimu North Link – Stage 2 (the Project). On 22 August 2025, the EPA determined that the application was complete and complied with section 46(2) of the Fast-track Approvals Act 2024 (FTAA/the Act).

1.2 The application was deemed to not have any competing applications or existing resource consent concerns under section 47 of the Act by the EPA on 5 September 2025. The application is to construct a 4-lane, median divided highway to replace existing State Highway 2 corridor between Te Puna and Ōmokoroa, including altering the existing designation.

1.3 As part of the application, NZTA is seeking an approval that would otherwise be sought under regulation 42 or 43 of the Freshwater Fisheries Regulations 1983.

1.4 On 8 September 2025, in accordance with section 51(2)(e) of the Act, the Panel Convener directed the EPA to obtain a report prepared by the Director-General of Conservation (Director-General). This report is due to the EPA on 25 November 2025.

1.5 This report provides information relating to proposed activities for which the applicant is seeking a complex freshwater fisheries approval.

2. Purpose of the report

2.1 This report has been prepared by the Department of Conservation (DOC) on behalf of the Director-General. This report provides information on risks relating to complex freshwater fisheries activities to assist the Panel in its consideration of the application by NZTA for an approval or dispensation for the Takitimu North Link - Stage 2 Project.

2.2 In accordance with clause 4 of Schedule 9 of the Act, this report must address the following matters:

- the alignment of the proposed activity with best practice and the New Zealand Fish Passage Guidelines; and
- the management of risks to freshwater values or habitat, including prevention of access to or spread of invasive species; and
- the availability and quality of the habitat upstream and downstream from the proposed activity; and
- 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
- the advantages and disadvantages of providing fish passage upstream or downstream of the proposed activity; and

- any conditions that should be imposed in accordance with clause 6 of Schedule 9 or section 84 of the Act.

3. The Project

3.1 The Project is a proposal to construct a four-lane, median-divided highway to replace the existing State Highway 2 corridor between Te Puna and Ōmokoroa.

3.2 The application includes a Specimen Design that proposes 15 permanent stream realignments. The applicant considers that, as these are permanent diversions that redirect water from the natural stream channel, they are captured by clause (c) of the definition of complex freshwater fisheries activities. In addition, because the diversions will persist for more than three months, and some realignments are located within 500 metres of the coast with works potentially occurring during the whitebait season, they are also captured by clause (c)(ii) of the definition.

3.3 This report relates to the application for complex freshwater fisheries activity approval, specifically dispensation for 15 permanent stream realignments.

4. Overview of DOC's report

4.1 DOC's assessment can be summarised into the following key points:

- The applicant proposes 15 permanent stream realignments and associated culverts, with approximately 3.4 km of stream length affected. Of this, 2.6 km will be fully fish-passable, and 0.8 km will provide passage for climbing species only.
- Surveys indicate the affected waterways support a relatively small native freshwater fish fauna, including shortfin eel, longfin eel (At Risk: Declining), common bully, īnanga, and kōura. Introduced species such as rainbow trout are also present.

The proposed design principles for stream realignments and culverts appear appropriate in concept, aiming to replicate natural habitat and provide fish passage. However, detailed designs for the diversions have not been provided.

- The application lacks certainty on how fish passage will be achieved in steep or ephemeral reaches, and how constraints such as gradient will be addressed.

If the Panel is of the mind to grant, DOC strongly recommends conditions requiring adherence to the New Zealand Fish Passage Guidelines (Version 2.0, MfE 2024), including:

- Clear fish passage objectives and performance standards;
- Design standards for culverts and diversion channels;
- Criteria for nature-like fishways and appropriate flow conditions.

- Monitoring of fish passage success should be required, following best practice methods in the New Zealand Fish Passage Guidelines.

Additional conditions that DOC has suggested to include:

- No instream works during peak migration periods;
- No wet concrete in flowing water;
- Robust biosecurity measures (Check, Clean, Dry protocols);
- Contingency actions if fish passage objectives are not met.

5. Sources

5.1 This report draws on information from the substantive application, in particular:

- Appendix 9.4.4 - Ecological Effects Assessment
- Substantive Application Report Part 7
- Appendix 9.1.2 – Proposed Resource Consent Conditions (provided 24 October 2025)

5.2 In addition, DOC and NZTA have engaged post-lodgement to discuss issues as encouraged by the Panel Convener. This has resulted in the applicant providing further detail and photos on the site habitat, and clarifying the approvals they had requested.

5.3 The assessment in this report is informed by advice from one of DOC's freshwater experts, Jacob Williams, whose expertise is detailed in **Appendix B**.

6. Complex freshwater fisheries activities

6.1 Statutory context

6.2 NZTA is seeking "complex freshwater fisheries activity approval" under the Act for fifteen permanent stream realignments associated with the Project.

6.3 Under the Act (clause 7 of Schedule 9), a complex freshwater fisheries activity approval is deemed to be issued under regulation 42 or 43 of the Freshwater Fisheries Regulations (FFR).

6.4 Relevantly, regulation 43 of the FFR provides that a proposal to build a diversion structure requires notification to the Director-General, who may then decide whether a 'fish facility' is required.

6.5 A fish facility is defined in the FFR as "any structure or device, including any fish pass or fish screen inserted in or by any water course or lake, to stop, permit, or control the passage of fish through, around, or past any dam or other structure impeding the natural movement of fish upstream or downstream". The Director-General may either (a) require a fish facility and impose conditions or (b) issue a dispensation from the requirement to provide a fish facility. Under the FTAA, a permanent diversion structure is "a complex freshwater fisheries activity" requiring complex freshwater fisheries approval.

The application

6.6 The applicant seeks approval for complex freshwater fisheries activities under section 42(4)(j) of the FTAA. These approvals are required because the Project includes 15 permanent stream realignments and is likely to involve temporary stream diversions persisting for more than three months during construction.

6.7 Under the FTAA, complex freshwater fisheries activities include:

- Construction of a culvert or ford that permanently blocks fish passage;
- A permanent dam or diversion structure;
- Works that require disturbance to a water body for more than three months, occur within 500 m of the coast during whitebaiting season, or in areas used for spawning during the spawning season.

6.8 The Project's Specimen Design proposes 13 culverts across the new state highway and realigned local roads. None of these culverts will permanently block fish passage, so they do not fall under clause (a) of the definition. However, the 15 permanent stream realignments are captured by clause (c), as they divert water from natural stream channels and will persist for more than three months. Some realignments are within 500 m of the coast, and works may occur during the whitebait season, further engaging clause (c)(ii).

6.9 No dams, other in-stream structures, or fish facilities are proposed.

Stream Realignment Details

- Total length of stream to be realigned: approximately 3.4 km.
- Of this, 2.6 km will be fully fish-passable.
- The remaining 0.8 km will provide limited fish passage due to the nature of the waterways (steep gradients, small catchments, ephemeral flow). In these areas, passage will be provided for climbing species rather than all species present.

Freshwater Species and Values

6.10 The applicant's surveys identified the following species within affected waterways:

Common Name	Scientific Name	NZ Threat Classification
Shortfin eel	*Anguilla australis*	Not Threatened
Longfin eel	*Anguilla dieffenbachii*	At Risk – Declining
Common bully	*Gobiomorphus cotidianus*	Not Threatened
Īnanga	*Galaxias maculatus*	At Risk – Declining
Banded kōkopu	*Galaxias fasciatus*	Not Threatened

Giant bully	*Gobiomorphus gobioides*	Not Threatened
Redfin bully	*Gobiomorphus huttoni*	Not Threatened
Smelt	*Retropinna retropinna*	Not Threatened

6.11 Surveys also recorded kōura (*Paranephrops planifrons*, Not Threatened) and introduced species such as rainbow trout (*Oncorhynchus mykiss*).

Fish Passage and Habitat Objectives

6.12 The applicant states that fish passage throughout the Project will be provided to a level "as good or better than the existing situation," with improvements including:

- Replacement of inadequate culverts;
- Design of new culverts to comply with the New Zealand Fish Passage Guidelines (Version 2.0, MfE 2024);
- Stream realignments designed to replicate natural aquatic habitat attributes, including stable pools, gravel and cobble riffles, and microhabitats for fish and invertebrates.

6.13 Passage for climbing species (especially eels) will be prioritised in steep or ephemeral reaches where full passage for all species is not practicable.

Conditions Proposed

6.14 The applicant does not propose standalone conditions for complex freshwater fisheries activities. Instead, it relies on resource consent conditions, particularly Condition 45 of RC.1 – RC.5, which requires:

- Preparation and implementation of a Stream Management and Monitoring Plan (SMMP);
- Stream monitoring prior to, during, and post-construction;
- Detailed stream design for each affected reach, including installation requirements.

7. Assessment

7.1 Schedule 9, clause 4 of the Act sets out what this report must include.

The alignment of the proposed activity with best practice and the New Zealand Fish Passage Guidelines (clause 4(a))

7.2 DOC notes that the Project proposes 15 permanent stream realignments, along with additional temporary stream diversions expected to remain in place for more than three months. The total length of stream to be realigned is approximately 3.4 km, of which 2.6 km will be fully fish passable. The remaining 0.8 km is proposed to have limited fish passage due to the nature of the waterways—steep gradients, limited catchments, and ephemeral flow. In these areas, the applicant proposes to provide passage for climbing species only, rather than all species present in the catchment.

7.3 The applicant has stated that “Fish passage throughout the Project has been provided to a level that is as good or better than it is in the existing situation. Improvements include replacing inadequate culverts, and designing new culverts to comply with the NZ Fish Passage Guidelines (Version 2.0, MfE, 2024). Overall, the Project will likely result in a benefit for fish passage, with upstream catchments better accessible by a wider range of species” (NZTA, 2025, p. 191).

7.4 DOC considers that this statement indicates the applicant intends to comply with the New Zealand Fish Passage Guidelines for culvert design and installation.

7.5 The applicant further states that “design of all the stream realignments have been carefully assessed against the NZ Fish Passage Guidelines and appropriate fish passage provided in accordance with them” (NZTA, 2025, p. 194).

7.6 DOC acknowledges that the application indicates alignment with the New Zealand Fish Passage Guidelines for both culverts and stream realignments. However, detailed plans for the proposed diversions have not yet been provided. DOC recommends that appropriate conditions be imposed to ensure compliance with the guidelines is maintained throughout implementation.

The management of risks to freshwater values or habitat, including prevention of access to or spread of invasive species (clause 4(b))

7.7 DOC notes that the applicant has proposed various mitigation measures to prevent the spread of invasive species, including a biosecurity management plan. However, DOC is unable to assess the adequacy of these measures without access to the full report.

7.8 The applicant has stated that “No fish salvage activities are proposed as part of this Application. Any need for fish salvage will be implemented by the construction contractor based on their detailed construction methodology” (NZTA, 2025, p. 188). DOC considers that this approach limits certainty around whether potential impacts on freshwater biodiversity will be appropriately mitigated.

7.9 DOC recommends that robust conditions be imposed to ensure freshwater biodiversity effects are adequately managed and monitored. These should include, where not already proposed:

- No instream works during peak migration times
- No wet concrete within flowing water
- Monitoring of fish passage to ensure fish passage objectives have been met

7.10 DOC supports the inclusion of biosecurity measures such as “Check, Clean, Dry” protocols and best practice procedures, including equipment clean-down between sites to prevent the spread of freshwater pests. Biosecurity risk assessments should be undertaken prior to any translocation, including assessment of fish for signs of sickness or disease.

7.11 DOC notes that due to the natural tendency of streams to migrate across floodplains, there is no guarantee that diverted streams will remain in their new artificial alignments. Waterways typically occupy their current positions due to equilibrium with the surrounding physical environment, including interactions with groundwater, geology, and slope. Artificial realignment may disrupt these dynamics. DOC recommends that appropriate monitoring be undertaken to ensure fish passage outcomes are achieved and that unintended consequences, such as bank or bed erosion, loss of channel flow, or creation of new fish passage barriers, are identified and addressed.

The availability and quality of the habitat upstream and downstream from the proposed activity (clause 4(c))

7.12 DOC notes that the applicant has undertaken surveys in the affected waterways. However, it is difficult to locate information specific to areas upstream of the proposed culverts and diversions. The use of inconsistent naming conventions across different documents makes it challenging to compare stream, culvert, and diversion locations, and to assess the availability and quality of habitat both upstream and downstream. DOC recommends that the applicant provide a clear cross-reference or mapping of stream names and infrastructure locations to support assessment of ecological effects and fish passage outcomes.

The presence of threatened, data-deficient, or at-risk species under the New Zealand Threat Classification System in the vicinity of the proposed activity (clause 4(d))

7.13 The Applicant has provided information below on species present in the vicinity of the proposed activity, as summarised in the table below:

Common name	Scientific name	New Zealand Threat Classification Status
Shortfin eel	*Anguilla australis*	Not Threatened
Longfin eel	*Anguilla dieffenbachii*	At Risk - Declining
Banded kokopu	*Galaxias fasciatus*	Not Threatened
Inanga	*Galaxias maculatus*	At Risk – Declining
Giant bully	*Gobiomorphus gobioides*	At Risk – Naturally Uncommon
Torrentfish	*Cheimarrichthys fosteri*	At Risk – Declining

Redfin bully	*Gobiomorphus huttoni*	Not Threatened
Common bully	*Gobiomorphus cotidianus*	Not Threatened
Common smelt	*Retropinna retropinna*	Not Threatened
Freshwater shrimp	*Paratya curvirostris*	Not Threatened
Kakahi	*Echyridella menziesii*	At Risk - Declining

7.14 The affected waterways have a reasonable range of species present comprising of nine native freshwater fish species as well as two freshwater invertebrates (see Table 1).

7.15 New Zealand Freshwater Fish Database (NZFFD) records indicate that three other native freshwater fish and invertebrate species have been recorded within or in adjacent catchments. These are giant kokopu (At Risk, Declining), shortjaw kokopu (Threatened, Nationally Vulnerable) and koura (Not Threatened).

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

7.16 DOC notes that the applicant has stated the proposed stream realignment activities will *"provide an opportunity to enhance water quality and hydrological function"* (NZTA, 2025, p. 191). This is expected to be achieved through measures such as improved shading, filtration of overland runoff, reduction of nutrient and sediment input, and stabilisation of thermal regimes. The applicant also proposes that aquatic plant removal and greater baseflow retention will improve water quantity in the realigned streams.

7.17 DOC acknowledges that some existing culverts under SH2 and local roads currently do not allow for fish passage. The proposed replacement of these culverts with bridges and fish-passable culverts is expected to result in limited or full fish passage where none currently exists. The applicant has stated that *"replacing the existing SH2 stream culverts with bridges and fish passable culverts [will reopen] approximately 6.2 km (based on available aerial imagery) of existing upstream aquatic habitat to migration of the target species (juvenile inanga)"* (BBO, 2025, p. 61). DOC considers that providing fish passage upstream of the proposed highway is an improvement on the current situation. However, ongoing fish passage may not be achieved if downstream barriers remain, impeding access to these upstream habitats.

7.18 DOC notes that access for all fish species may not be achievable at all culverts and stream diversions due to the nature of the waterways, steep gradients, limited catchments, and ephemeral flow. In these cases, the applicant proposes to provide passage for climbing fish species only. DOC considers this to be an appropriate objective given the physical characteristics of the affected waterways.

8. Proposed conditions

Conditions in accordance with Schedule 9, clause 6 of the Act

8.1 The Panel may impose conditions under Schedule 9, clause 6 of the Act on an approval that the panel considers necessary to manage the effects of the activity on freshwater fish species, taking into account:

a. *Best practice standards; and*
b. *The New Zealand Fish Passage Guidelines.*

8.2 The applicant considers that its proposed resource consent conditions adequately provide for managing the effects of the proposed complex freshwater fisheries activities. In particular, Condition 45 of RC.1 – RC.5 requires the preparation and implementation of a Stream Management and Monitoring Plan (SMMP). The SMMP includes requirements for stream monitoring prior to, during, and post-construction to inform stream designs for each affected stream or reach involving realignment and/or culverting. It also includes stream realignment installation requirements. Accordingly, the applicant does not propose standalone conditions specific to freshwater fisheries activities.

8.3 DOC recommends that the applicant follow the good practice design standards outlined in the New Zealand Fish Passage Guidelines (Version 2.0, MfE, 2024). In particular, DOC recommends:

- Setting clear fish passage objectives and performance standards (Section 3);
- Incorporating appropriate design standards to provide passage for target fish species (Sections 4, 5.5.3, 7.3.5, and Appendix A);
- Monitoring fish passage success (Section 8).

8.4 DOC notes that draft Condition 45 (RC.1 – RC.5) requires stream designs to “take into account” the New Zealand Fish Passage Guidelines. However, this wording does not require adherence to the guidelines, and therefore does not provide certainty that they will be followed. DOC recommends that the guidelines *should* be followed, except in unique or exceptional circumstances.

8.5 DOC recommends that the conditions include criteria for nature-like fishways (Table 7.3 of the New Zealand Fish Passage Guidelines) to ensure fish passage objectives are met throughout diversion channels and culverts. Flow conditions through these structures should support the life history stages of applicable fish species. Design specifications for rock ramp fishways (Table 5.4) and culvert design methodology (e.g. swimming ability considerations in Figure 4.8) should be used to inform design.

9. Consultation

Pre-lodgement

The Applicant engaged with DOC between April and July 2025. DOC provided a summary of pre lodgement consultation to the Applicant on 2 July 2025. The Applicant subsequently provided a revised Ecological Impact Assessment that would form part of their application. DOC provided further pre lodgement feedback on 18 July 2025.

In summary, DOC advised that

The application must include all required information under Schedule 9 for any complex freshwater fisheries approval.

DOC cannot comment fully yet because detailed information on proposed diversions/structures is missing.

Conditions will be set case-by-case but typically focus on fish passage design**,** timing of works to avoid migration periods, and minimizing impacts during construction (e.g., sediment control, avoiding wet concrete in flowing water).

Post-construction, structures must be assessed for fish passage risk using the Fish Passage Assessment Tool, with corrective actions if risks are identified.

Post-lodgement

Post-lodgement, DOC and the Applicant have engaged collaboratively to discuss the freshwater fisheries approval sought. The information contained in the lodged substantive application addressed DOC's comments during the pre-lodgement consultation.

A meeting was held between DOC and the Applicant on 13 October 2025 to discuss the freshwater fisheries approval and proposed conditions. Following the discussion the Applicant provided a revised set of draft conditions for the resource consent, which they consider appropriate to cover their freshwater fisheries approval (Post lodgement version October 2025). DOC has suggested a set of conditions for this approval, if the Panel is of a mind to grant, to ensure that the applicant follow the good practice design standards outlined in the New Zealand Fish Passage Guidelines

10. Additional information

10.1 Conservation legislation, statutory planning documents, and policy

10.2 The Conservation Act 1987 is relevant to consider alongside the freshwater fisheries approval sought for this Project.

10.3 The FFR are deemed to be administered under the Conservation Act 1987. A function of the Department under the Conservation Act 1987 is "*to preserve so far as is practicable all indigenous freshwater fisheries, and protect recreational freshwater fisheries and freshwater fish habitats*" (section 6(ab)). A key component of preserving indigenous freshwater fisheries is ensuring native fish have access unobstructed by man-made barriers to habitats required to complete their life cycle. This function supports the resolution of issues identified in this report by way of conditions.

11. Treaty of Waitangi settlement considerations and obligations

11.1 Treaty of Waitangi settlement obligations

11.2 Under section 7 of the Act the Panel must act in a manner that is consistent with obligations arising under existing Treaty Settlements. This includes obligations arising under a Treaty settlement Act or a Treaty settlement deed. The relevant Treaty settlement Acts which relate to the proposed project area include the Ngāti Pūkenga Claims Settlement Act 2017, the Ngāti Hinerangi Claims Settlement Act 2021, and the Ngā Hapū o Ngāti Ranginui Clams Settlement Act 2025. The relevant Treaty settlement deeds which relate to the proposed project area include the Tauranga Moana Iwi Collective Deed of Settlement, the Ngāi Te Rangi and Ngā Pōtiki Deed of Settlement, the Ngāti Rahiri Tumutumu Deed of Settlement, and the Ngāti Tamaterā Deed of Settlement.

11.3 Ministry for the Environment (MFE) provided a report which sets out the section 18 matters it considered relevant to the application. DOC was/was not consulted by MFE on this report.

11.4 DOC has reviewed the section 18 report and notes MFE's conclusion that the primary matter for consideration by the Panel, as relevant to the Freshwater Fisheries Regulations 1983 approval, is the potential impact of the project on customary food-gathering practices within tidally influenced waterways connected to Te Awanui. DOC notes that the project area is subject to regulations under the Fisheries (Kaimoana Customary Fishing) Regulations 1998, with tangata kaitiaki/tiaki appointed by the Tauranga Moana Iwi Customary Fisheries Trust for Ngāi Te Rangi, Ngāti Ranginui, and Ngāti Pūkenga. While the project does not involve taking fisheries resources, DOC considers that sediment and contaminants from earthworks could adversely affect fisheries habitats and water quality, which may in turn impact customary practices. DOC notes that tangata whenua are best placed to advise on these potential effects.

11.5 Treaty of Waitangi principles

11.6 DOC's work in preparing this report has been carried out in a manner that, as far as possible, gives effect to the principles of the Treaty of Waitangi (arising from the obligation on DOC from section 4 of the Conservation Act). The principles most applicable to DOC's role are:

- **Partnership** – mutual good faith and reasonableness.
- **Informed decision-making** - Both the Crown and Māori need to be well informed of the other's interests and views. Consultation is a means to achieve informed decision-making.
- **Active protection** - requires informed decision-making and judgement as to what is reasonable in the circumstances.
- **Redress –** requires recognition of existing rights and interests.

11.7 For this application, this has included:

- DOC engagement with Treaty partners on the application. We note this has occurred within the context of the fast-track process with prescribed timeframes, and where the applicant has an obligation to consult and Treaty partners have a right to be invited to comment. The scope of engagement also recognised DOC's role to provide reports and comments on the application, and not in its usual role as decision-maker.
- identifying for the Panel any relevant information from Protocols or relationship agreements prepared in accordance with Settlements (eg taonga species);

- ensuring that the information in this report is fully informed by any information from Treaty partners and the impact the activity would have on their interests.

11.8 DOC notified Ngā Hapū o Ngāti Ranginui Settlement Trust and Te Rūnanga o Ngāti Ranginui of the application via email. These emails were issued by DOC's Kaitohu Matua. DOC notes that emails were not sent to each hapū of Ngāti Ranginui individually.

11.9 DOC discussed engagement with NZTA, who outlined their approach to working with Treaty partners. DOC notes that NZTA engaged at an iwi level with Ngāti Ranginui, Ngāti Pūkenga, and Ngāi Te Rangi prior to lodgement. NZTA advised that Ngāti Pūkenga deferred further engagement to Ngāti Ranginui, and that Ngāti Ranginui recommended direct engagement with the two hapū most affected, Pirirākau and Ngāti Taka, who expressed a preference to be the primary points of contact. DOC also notes that NZTA did not provide details on engagement outcomes with Ngāi Te Rangi.

Appendix A: Technical expert credentials

Jacob Matthew Williams

I am employed by the Department of Conservation based in the Manawatū as a Senior Technical Advisor for Freshwater. I have worked for the Department of Conservation continuously since August 2017, for two years as a Resource Management Planner where my role was to provide planning support to DOC submissions on notified and non-notified consent applications and regional and district plan changes and reviews. I was then engaged as a Technical Advisor Freshwater for six years where I provided advice from a freshwater technical (hydrological, river process and ecological) perspective on notified and non-notified consents and regional and district plan changes and reviews. I have been engaged as a Senior Technical Advisor since the beginning of 2025.

My qualifications are BSc in Geography from Massey University, and a PGDipSci in Geography from Massey University.

Appendix B: Complex freshwater fisheries activities proposed conditions – marked up with DOC's proposed changes

The applicant considers that its proposed resource consent conditions adequately provide for managing the effects of the proposed complex freshwater fisheries activities. Accordingly, the applicant did not propose standalone conditions specific to freshwater fisheries activities.

If the panel is of a mind to approve, DOC has recommended the below conditions to ensure that the applicant follow the good practice design standards outlined in the New Zealand Fish Passage Guidelines (Version 2.0, MfE, 2024).

DOC notes that draft Condition 27.1(a) (Resource Consent Conditions) requires stream designs to "take into account" the New Zealand Fish Passage Guidelines. However, this wording does not require adherence to the guidelines, and therefore does not provide certainty that they will be followed. DOC recommends that the guidelines should be followed, except in unique or exceptional circumstances.

DOC recommends that the conditions include criteria for nature-like fishways (Table 7.3 of the New Zealand Fish Passage Guidelines) to ensure fish passage objectives are met throughout diversion channels and culverts. Flow conditions through these structures should support the life history stages of applicable fish species.

Exclusion Conditions

FF1 The Dispensation holder will not undertake the following activities:

(a) Instream works during peak spawning and migration times for the native fish species present in the waterways;

(b) The utilisation of wet concrete in flowing water or in a location where it can enter flowing water.

Biosecurity Management

FF2 The Dispensation holder will ensure that all equipment to be used close to or within any surface waterbodies for the establishment of the approved diversions is clean and dry prior to use.

FF3 The Dispensation holder must comply with the Ministry for Primary Industry's "Check, Clean, Dry (North Island)" cleaning method to prevent the spread of didymo (Didymosphenia geminata), gold clam (*Corbicula fluminea*) and other freshwater pests when moving between waterways. "Check, Clean, Dry" cleaning methods can be found at http://www.biosecurity.govt.nz/cleaning. The Dispensation holder must regularly check this website and update their precautions accordingly.

FF4 The Dispensation holder will undertake biosecurity risk assessments of any species which are to be translocated throughout the establishment of the stream realignments.

New Zealand Fish Passage Guidelines

FF5 The Dispensation holder shall follow good practice design standards as outlined in the New Zealand 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 (including sections 4, 5.5.3 and 7.3.5, and Appendix A).

FF6 Diversion channels shall meet the criteria for nature-like fishways in table 7.3 of the New Zealand Fish Passage Guidelines and copied below.

Specifications	**Design guidelines**
Fishway operating range and differential head	The range of flows and differential head over which the fishway operates is a site-specific decision, but the standard criterion of fishway operation up to and including a 1-in-5-year flood is a baseline requirement.
Resting pool	Resting pools are typically used for every 1 m rise in vertical elevation and some designs include oversized resting pools with a range of habitats that provide habitat complexity, and associated protection from predation and resting habitat for all expected species and size classes.
Pool size	The recommended generic pool size for a ridge-style rock fishway is 2 m long (clear space), allowing dissipation of flow to maintain acceptable turbulence levels and appropriately quiet water in fish resting areas. Pool size may be reduced where head loss is also reduced.
Minimum depth	The minimum depth recommended for smallbodied fish is 0.3–0.4 m in at least 50% of the pool area in a continuous path.
Slope	A slope of 1:30–1:50 (vertical: horizontal) is recommended for the passage of smallbodied species, but there is scope to steepen the fishway where head loss and turbulence are low.
Head differential	The head differential for a bypass channel is a site-specific decision, but 75–100 mm (i.e., corresponding to velocities of 1.0–1.22 m s^{-1}) is a starting point for many rock fishways, depending on the fish species present. We suggest that no head loss should exceed 120 mm.
Hydraulics	Bypass channels must provide ‘hydraulic diversity’ so that fish can choose their ascent path. Turbulence should be minimised, with little ‘white’ water in the fishway pools, and if there is an assumption that turbulence can be calculated in the same manner as for a vertical slot, then it should be 25 W m^{-3}.

FF7 Monitoring of fish passage success shall be undertaken following best practice methods and standards in section 8 of the New Zealand Fish Passage Guidelines. Monitoring results shall be provided to DOC annually by 30 June.