

The Independent Hearing Commissioner

30 March 2020  
9.30 am

## Staff Report for Hearing

*The recommendation in the staff report represents the opinion of the writer and it is not binding on the Independent Hearing Commissioner. The report is evidence and has no greater weight than any other evidence that the Commissioner will hear and consider.*

### Hearing of Application – APP-20191703

#### Fiordland Trails Trust

Compiled by Sonya Nicol, Consultant Consents Officer

- Hearing: The hearing is scheduled to commence at 9.30 am on Monday, 30 March 2020 at the Distinction Te Anau Hotel, 64 Lakefront Drive, Te Anau.
- Application: The Fiordland Trails Trust has applied for:
- resource consent for a period of 25 years for the diversion of surface water, the diversion of groundwater and for wetland modification associated within the installation of a third culvert at Leg 6 of the Lake 2 Lake Te Anau to Manapouri Multi Use Trail
- This application is to be considered alongside APP-20191150 which the Fiordland Trails Trust has also applied for:
- retrospective resource consent for wetland modification to enable construction of 35 metres of the trail, the placement and use of two culverts and the use of Leg 6 of the Lake 2 Lake Te Anau to Manapouri Trail.
- Notification: The application was publicly notified on 4 December 2019 and two submissions to the application were received, one in support and one in opposition. Prior to notification, written approval was received from Te Ao Marama Inc and a neutral written approval form was received from Fish & Game that neither supported nor opposed the application.
- Recommendation: I recommend that the application is refused for the reasons that are detailed in this report.

## Executive Summary

The application is for resource consent for a period of 25 years for the diversion of surface water, the diversion of groundwater and for wetland modification associated within the installation of a third culvert at Leg 6 of the Lake 2 Lake Te Anau to Manapouri Multi Use Trail.

For clarity, the applicant (Fiordland Trails Trust) has another separate application (APP-20191150) for retrospective resource consent for wetland modification to enable construction of 35 metres of the trail, the placement and use of two culverts and the use of Leg 6 of the Lake 2 Lake Te Anau to Manapouri Trail. This current application (APP-20191703) is to install a third culvert within the wetland area.

Accordingly, this report for APP-20191703 has been prepared to accompany APP-20191150.

The application is for the following resource consents to authorise proposed activities at Leg 6 of the Lake 2 Lake Te Anau to Manapouri Multi Use Trail, being;

- ***Discharge Permit for the diversion of surface water and groundwater; and***
- ***Land Use Consent for the use of land within a natural wetland.***

There were two submissions to the application received, one in support and one in opposition. Prior to notification, written approval was received from Te Ao Marama Inc and a neutral written approval form was received from Fish & Game that neither supported nor opposed the application.

Overall, I recommend that the application be declined.

## 1. Introduction

### 1.1 Status and purpose of this report

This report is to be read in conjunction with APP-20191150 as requested by the applicant.

### 1.2 About the author

This report is to be read in conjunction with APP-20191150 as requested by the applicant.

### 1.3 Information relied on in preparation of this report

In preparation of this report I have had regard to the following documents:

- Resource consent application;
- Review of effects of the Fiordland trail on Wetland Values dated 6 November 2019;
- Resource Management Act 1991 (RMA);
- National Policy Statement on Freshwater 2014 (NPSFM);
- Southland Regional Policy Statement 2017 (RPS);
- Regional Water Plan for Southland 2010 (RWP);
- Proposed Southland Water and Land Plan (Decisions Version) 2018 (pSWLP); and
- Te Tangi a Tauria (Iwi Management Plan) 2008.

## 2. The application

### 2.1 The proposed activities

Applicant:	Fiordland Trails Trust
Application:	Resource consent for a period of 25 years for the diversion of surface water, the diversion of groundwater and for wetland modification associated within the installation of a third culvert at Leg 6 of the Lake 2 Lake Te Anau to Manapouri Multi Use Trail.
Site address or location:	Leg 6 of the Lake 2 Lake Cycle Trail between chainage 2200 and 2300
Legal description:	Public Land, owned by the Crown
Map Reference:	1180612 E, N4942051 and 1180593 E, 4942084

### The Proposal

The Fiordland Trails Trust (the applicant) is seeking resource consent for a period of 25 years for the diversion of surface water, the diversion of groundwater and for wetland modification associated within the installation of a third culvert at Leg 6 of the Lake 2 Lake Te Anau to Manapouri Multi Use Trail (the Trail).

The applicant has another separate application (APP-20191150) for retrospective resource consent for wetland modification to enable construction of 35 metres of the trail, the placement and use of

two culverts and the use of Leg 6 of the Lake 2 Lake Te Anau to Manapouri Trail. The key activity for consideration under application APP-20191703 is the proposal to install a third culvert within the wetland area.

The subject application APP-20191703 and the other application APP-20191150 (as the applicant has asked for them to be considered alongside each other) describe the proposals in detail, namely the works proposed by this application (APP-20191703) include:

Installing a 4m long x 400mm diameter polyethylene culvert at a location approximately 12 metres to the north of the southernmost 800mm diameter culvert as directed by the Engineer. This will require the following works:

#### Excavation

- The trench will be approximately 600mm wide;
- Trail pavement material shall be set aside for later reinstatement;
- Natural substrate material excavated shall be set aside for later placement to the water table filling;
- Excavation undertaken from downstream to upstream; and
- Use methods to prevent silt laden water following into wetland.

#### Placement

- The pipe will be embedded to a depth of a third of the culvert diameter (135mm) into the natural bed;
- The culvert shall be backfilled with granular material and compacted;
- Minimum gradient to the culvert of 1 in 20;
- Water shall not be released to the culvert until all installation is completed and loose material removed.

## 2.2 Description of the affected environment

The application and the s42A report for APP-20191150 describe the existing environment in detail. The area is classed as a wetland.

The wetland is not listed as a Regionally Significant Wetland within the pSWLP. The application site is positioned above Lake Manapouri, which is a Ngai Tahu Statutory Acknowledgement Area. The wetland is fed by a spring fed stream that drains into Lake Manapouri. The wetland area is defined as being within Natural State for Water Quality.

## 2.3 Actual and potential effects

### *Effects to be considered (Section 104(1)(a))*

Consideration has been given to the following effects:

- hydrological and ecological effects on the wetland;
- habitat and ecosystems;
- water quality;
- social and economic and public access.

These effects are discussed below.



- **Hydrological and ecological effects on the wetland**

The applicants submitted this revised application for an additional culvert following the review they had undertaken by Mr Hamilton (Senior Water Resources Engineer for GeoSolve) which outlined that the works proposed under APP-20191150 reduced the interflow in the wetland from upstream to downstream. No vegetation is required to be removed as part of the proposed works as this has already occurred, the effects of this is being considered retrospectively under APP-20191150.

Technical comments provided by Wildlands Consultants Ltd (dated 6 November 2019), consider that the proposed third culvert would exacerbate the adverse hydrological effects. Therefore, hydrological effects from the proposal are considered to be more than minor.

- **Effects on habitat and ecosystems**

The applicants have advised that the culvert would be designed and embedded in accordance with the plan requirements for the invert (Rule 59(a)(v) of the pSWLP and Rule 28(v) of the RWP), meaning that the proposal would be embedded to enable fish passage. The third culvert includes modification of the wetland, and as per the assessment provided in the section above, it is considered that the effects on the wetland from the activity will be more than minor.

- **Water quality**

The nature of the works will be for a short duration to install the third culvert. It is anticipated that discolouration due to any sediments released would occur in this time, however the applicant has proposed mitigations to prevent the release of sediment. I consider effects on water quality will be minor.

- **Social and economic and public access effects**

The applicant highlights that the trail is having positive social and economic benefits, enhancing public access to public land as well as enhancing recreational opportunities. Furthermore, as set out within the application, the proposed activity is associated with regionally significant infrastructure as defined within the pSWLP. I consider that these are positive effects from the trail for the Fiordland community. The trail also takes people off the roading network which improves overall safety.

### ***Effects Conclusion***

When looking through the lens of the policies and objectives of the regional plans, the adverse effects arising from the proposed activity in terms of hydrological and resultant ecological effects are expected considered to be more than minor. However, there are positive effects in respect of social, economic and public access effects.

## **3. Procedural Matters**

### **3.1 Regional Planning framework**

Resource consents are required under the Regional Water Plan (2010) and the proposed Southland Water and Land Plan (2018).

**Regional Water Plan for Southland 2010 (RWP)**

- **Discretionary activity** under Rule 20(c) for the diversion of water from any naturally occurring wetland.

**The Proposed Southland Water and Land Plan 2018 (pSWLP)**

- **Non-complying activity** under Rule 74(c) for the use of land within a natural wetland which in this instance is for wetland modification associated within the installation of a third culvert and the use of Leg 6 of the Lake 2 Lake Te Anau to Manapouri Multi Use Trail.
- **Discretionary activity** under Rule 4 as a discharge consent is required for the diversion of water through the proposed third culvert to the downstream side of the trail.

There is no permitted activity rule in the pSWLP allowing for the diversion of groundwater or surface water from a wetland, and therefore consent is sought pursuant to section 14(3)(a) of the RMA as a **discretionary activity**.

An application for resource consent has been lodged with Environment Southland in accordance with these requirements ([attached](#)).

Overall, the application is considered to be a **non-complying** activity.

When considering a **non-complying activity**, the Council may only, in accordance with Section 104D, grant a resource consent for the activity if it is satisfied that the adverse effects of the activity are minor or the application is for an activity that will not be contrary to the objectives and policies of the relevant plan or proposed plan. If the application passes the “gateway” tests in Section 104D, under Section 104B the Council may grant or refuse consent for a non-complying activity, and if it grants the application, may impose conditions under Section 108 of the RMA.

### 3.2 Notification and Submissions

The application was publicly notified on 4 December 2019 under s95A(2)(a) as requested by the applicant.

Two submissions to the application were received, one in support and one in opposition. Prior to notification, written approval was received from Te Ao Marama Inc and a neutral written approval form was received from Fish & Game.

Submitter	Oppose/ Support	Issues/Comments <i>Decisions/Changes sought</i>	To be heard?
Public Health South	Support	<ul style="list-style-type: none"> <li>• Being physically active contributes to lowering the risk of heart disease, stroke and some cancers in addition to improving fitness, maintaining a healthy bodyweight and having positive effects on mental wellbeing.</li> <li>• Public Health South advocates for</li> </ul>	Not stated

Submitter	Oppose/ Support	Issues/Comments <i>Decisions/Changes sought</i>	To be heard?
		<p>environments that encourage physical activity.</p> <ul style="list-style-type: none"> <li>• This maintenance will assist in the physical activity of locals and tourists, vibrancy as a tourist area and mental wellbeing through exercise in the natural environment.</li> <li>• Track provides the option of active transport between Manapouri and Te Anau, which can assist in decreasing vehicle emissions as well as providing a safe alternative for active transport users instead of the State Highway 95.</li> <li>• The provision of this track for locals and tourists supports three of the 17 World Health Organisation Sustainable Development Goals. These goals act as a guide for a better and more sustainable future for all. The following goals apply: <ul style="list-style-type: none"> <li>➢ Goal Number 3: Ensure healthy lives and promote well-being for all ages</li> <li>➢ Goal Number 15: Promoting health and preventing disease through healthy natural environments</li> <li>➢ Goal Number 11: Fostering healthier cities through urban planning for cleaner air and safe and more active living.</li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>• <i>The Lake 2 Lake Trail supports the physical and mental wellbeing for locals and tourists, is a safe active transport option from Te Anau to Manapouri and attracts vibrancy to the area.</i></li> <li>• <i>Having a functional and maintained track contributing to these aspects are fully supported by Public Health South.</i></li> </ul>	
MA Rodway	Oppose	<ul style="list-style-type: none"> <li>• The proposal does not adequately remedy the adverse effects of building a cycleway over a naturally occurring wetland.</li> <li>• The original retrospective application to modify the wetland did not comply with the pSWLP and the council’s planner recommended that the consent not be granted. This proposal does not go far</li> </ul>	Yes

Submitter	Oppose/ Support	Issues/Comments <i>Decisions/Changes sought</i>	To be heard?
		<p>enough to remedy the situation and so would still not be compliant with the plan.</p> <ul style="list-style-type: none"> <li>• Granting a consent which allows the degradation of a natural wetland is contrary to the Draft National Policy of Freshwater Management (Sept 2019) which states that Regional Councils must include in its regional policy statement the following policy (or words to the same effect): <i>“The loss or degradation of all or any part of a natural inland wetland is avoided.”</i> The draft NPS also provides for protection of streams, and fish passage which are both affected by this activity. The proposed new culvert does not address these issues. The proposed NPS is not a legal requirement yet but it does signal the government’s intention and will likely be in force in 2020.</li> <li>• The proposed National Environmental Standards for Freshwater are also very protective of wetlands and should be considered in making a decision on this application.</li> <li>• The proposal does not intend to remedy the diversion of surface water and groundwater elsewhere on the trail, specifically in an area immediately to the south of the wetland where the trail intercepts groundwater and diverts it into a channel beside the trail for a distance of at least 50m.</li> <li>• The diversion of this groundwater has the potential to dry out the land on the downstream side of the trail over this distance and change the plant composition there, especially allowing the establishment of exotic shrubs and other plants that are tolerant of dryer conditions.</li> </ul> <p style="text-align: center;">• <i>Decline the application.</i></p> <ul style="list-style-type: none"> <li>• <i>Rather than installing another small diameter culvert, the applicants consider building a bridge or boardwalk over the wetland so that it either completely spans the area that is a wetland or installs a minimum number of piles to support a structure that provides for a cycleway but does not interfere with the flow of water</i></li> </ul>	

Submitter	Oppose/ Support	Issues/Comments <i>Decisions/Changes sought</i>	To be heard?
		<p><i>through the wetland and stream and allows natural wetland vegetation that was smothered by the original construction of the cycleway to regenerate and so restore the wetland and stream to what it was before the cycleway was built.</i></p> <ul style="list-style-type: none"> <li>• <i>There have been recommendations by Kelvin Lloyd of Wildlands that controlling weed species in or near the wetland would reduce the adverse effects of the cycleway to being less than minor. In my opinion this would not be the case. While weed control in the vicinity of the cycleway is desirable and should be a condition of the consent anyway this would not restore the loss of the wetland ecosystem that has occurred as a result of the current construction. It would do nothing to remedy or minimise these effects.</i></li> <li>• <i>Removal of the current gravel causeway and culverts is needed to restore the wetland to a near natural state.</i> <ul style="list-style-type: none"> <li>• <i>The individual piles of a boardwalk or complete span of the wetland areas by a bridge would be more likely to make the effects of the cycleway on the wetland less than minor so a consent may be able to be granted for the cycleway to be compliant with the pWALP and the NPS which is planned to be operative in 2020.</i></li> <li>• <i>The applicant should also install multiple culverts in the area of the trail where groundwater is intercepted south of the wetland so that this groundwater can flow under the trail and be returned to where it was prior to the construction of the trail.</i></li> </ul> </li> </ul>	

### 3.4 Statutory Considerations

Section 104 of the Act sets out the matters to be considered when assessing an application for a resource consent. Section 104(1) of the Resource Management Act, 1991, states:

- (1) *When considering an application for a resource consent and any submission received, the consent authority must, subject to Part 2, have regard to:*

- (a) any actual and potential effects on the environment of allowing the activity; and
- (b) any relevant provisions of:
  - (i) a national environmental standard;
  - (ii) other regulations;
  - (iii) a national policy statement;
  - (v) a regional or proposed regional policy statement;
  - (vi) a plan or proposed plan; and
- (c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.

All considerations are subject to Part 2 of the RMA, which sets out the purpose and principles that guide this legislation. This means that the matters in Part 2 prevail over other provisions of the RMA or provisions in planning instruments in the event of a conflict. Section 5 states the purpose of the RMA and Sections 6, 7 and 8 are principles intended to provide additional guidance as to the way in which the purpose is to be achieved.

In paragraphs 70 to 75 of *R J Davidson Family Trust v Marlborough District Council [2018] NZCA 316*, the Court of Appeal discussed the application of Part 2 of the RMA, with regard to the earlier Supreme Court decision, *Environmental Defence Society Inc v The New Zealand King Salmon Co Ltd [2014] NZSC 38*. The Court of Appeal noted that under Section 104, the “statutory language plainly contemplates direct consideration of Part 2 matters”. The Court also noted that plans made by local authorities may not necessarily reflect the provisions of Part 2 of the Act. The following is from paragraphs 74 and 75 of the *R J Davidson Family Trust* decision:

*“If it is clear that a plan has been prepared having regard to pt 2 and with a coherent set of policies designed to achieve clear environmental outcomes, the result of a genuine process that has regard to those policies in accordance with s 104(1) should be to implement those policies in evaluating a resource consent application. Reference to pt 2 in such a case would likely not add anything. It could not justify an outcome contrary to the thrust of the policies. Equally, if it appears the plan has not been prepared in a manner that appropriately reflects the provisions of pt 2, that will be a case where the consent authority will be required to give emphasis to pt 2.*

*If a plan that has been competently prepared under the Act it may be that in many cases the consent authority will feel assured in taking the view that there is no need to refer to pt 2 because doing so would not add anything to the evaluative exercise. Absent such assurance, or if in doubt, it will be appropriate and necessary to do so. That is the implication of the words “subject to Part 2” in s 104(1), the statement of the Act’s purpose in s 5, and the mandatory, albeit general, language of ss 6, 7 and 8.”*

As outlined in APP-20191150, I consider that the Regional Policy Statement and the regional plans have been developed in accordance with the purpose of the Resource Management Act. However, the Regional Water Plan predates the National Policy Statement for Freshwater Management and the Regional Policy Statement for Southland 2017, so there may be inconsistencies that warrant reference to Part 2 of the RMA for clarification.

Therefore, those matters which are relevant for this application are as follows:

- description of the receiving environment;
- assessment of the actual and potential effect of the activity on the environment;

- relevant provisions of the Regional Water Plan and the Proposed Southland Water and Land Plan (2018);
- relevant provisions of the Southland Regional Policy Statement;
- relevant provisions of the National Policy Statements and National Environmental Standards;
- Part 2 of the RMA.

Sections 108 and 220 provide for consent to be granted subject to conditions and sets out the kind of conditions that may be imposed.

### **3.5 Relevant provisions of the relevant regional plan objectives, policies and rules (Section 104(1)(b)(v))**

Council is currently operating under the Regional Water Plan (RWP) and the proposed Southland Water and Land Plan (pSLWP).

The pSWLP was notified by the Consent Authority on 3 June 2016 and decisions on the proposed Plan were notified in June 2018. The proposed Southland Water and Land Plan is subject to appeal; however, as it has legal effect under Section 104(1)(b) regard must, subject to Part 2 of the Act, be had to the provisions of any proposed plan. The relevant provisions of both plans are detailed below and are considered in turn.

The Environment Court issued an interim decision on the proposed Southland Water and Land Plan on 20 December 2019. By way of background, there were twenty-four persons who appealed the Southland Regional Council's decision to accept recommendations from a Hearing Panel appointed to hear the submissions on the proposed plan. The Interim decision issued on 20 December related to ten of those appeals and addresses the higher order provisions of the plan including most of its objectives and certain key policies.

The objectives and policies of the RWP and the pSWLP that are relevant to this application have been grouped according to topic.

#### **Key Policies**

I consider that the objectives and policies below are of the most significance in relation to the proposed activities.

#### **Regional Water Plan (RWP)**

*Objective 10*                      *To maintain or enhance the diversity and integrity of aquatic and riverine habitats and ecosystems.*

#### **Comment**

The explanation to Objective 10 states “*that habitats, being the natural places where organisms live, are an essential part of healthy ecosystems.*” The objective recognises that many habitats and ecosystems have been lost or degraded through use and development, and should at least be maintained, and where possible enhanced. This proposal is for the installation of a third culvert and modification of a natural wetland, which in my opinion does not maintain or enhance the wetland habitat and ecosystem in its original form and therefore the proposal is not consistent with Objective 10.

**Objective 12** *To maintain and enhance public access to river beds (including beds of streams and modified watercourses) and lake beds except in circumstances where public health and safety are at risk.*

**Comment**

As per my assessment in APP-20191150, Objective 12 of the RWP requires public access to river beds be maintained and enhanced and sets out in the explanation that public access to Crown land is a traditional right and is important for social, cultural and recreational reasons. The trail sits above Lake Manapouri, so while this trail is not strictly to a river or a lake bed as per Objective 12, I have included it, as I consider the overall intent of the Lake 2 Lake Trail is consistent with this objective as it provides public access to these areas.

**Comment**

**Policy 1A** *Take into account Iwi Management Plans*

**Comment**

Policy 1A of the RWP requires Te Tangi to be taken in account and this occurs below.

**Policy 3** *No reduction in water quality*

**Comment**

Policy 3 requires that no discharges to surface water activities result in a reduction of water quality beyond the zone of reasonable mixing, unless it is consistent with the proposed of sustainable management. The applicant has proposed methods in terms of the installation of the culvert to prevent silt laden water following into wetland and therefore the proposal is in accordance with the intent of Policy 3.

**Policy 38** *Avoid, remedy or mitigate the adverse effects of activities on wetlands through an integrated management approach with the Southland territorial authorities.*

**Comment**

Policy 38 of the RWP requires that any adverse effects of activities on wetlands should be avoided, remedied or mitigated through an integrated management approach. I consider effects on the wetland have not been avoided, mitigated or remedied by the proposal.

**Policy 40** *Encourage the maintenance and restoration of existing wetlands and the creation of new wetlands.*

**Comment**

Policy 40 relates to the creation of new wetlands, or the restoration of existing wetlands. This application is modifying an existing wetland, albeit for the purpose of mitigating effects from the trail (subject to APP-20191150) on the flow of water between the upstream and downstream flow path. I consider the proposal is partially in accordance with the intent of the policy, however I consider that the adverse effects from the application on the wetland will likely be more than minor as identified within the Wildlands report that outlines that the proposal will likely exacerbate the adverse hydrological effects on the wetland.



## Proposed Southland Water and Land Plan (pSWLP)

*Objective 2<sup>1</sup> Water and land is recognised as an enabler of primary production and the economic, social and cultural wellbeing of the region.*

### **Comment**

I consider that the proposal and the intent of the trail in using water and land does provide for the economic, social and cultural wellbeing for the Fiordland region.

*Objective 9B<sup>2</sup> The effective development, operation, maintenance and upgrading of Southland's regionally significant, nationally significant and critical infrastructure is enabled.*

### **Comment**

I concur with the applicant that the trail contributes to the wellbeing and health and safety of the people and communities in the region. This was also supported by the Public Health South submission. However, in my opinion the adverse effects from the application on the wetland will likely be more than minor.

*Objective 14<sup>3</sup> The range and diversity of indigenous ecosystem types and habitats within rivers, estuaries, wetlands and lakes, including their margins, and their life-supporting capacity are maintained or enhanced.*

### **Comment**

Objective 14 of the pSWLP requires that the range and diversity of indigenous ecosystem types and habitats within wetlands and their life-supporting capacity are maintained or enhanced. The proposed activity is for the diversion of surface water and groundwater and for wetland modification to enable the installation of a third culvert. In my opinion this modification and resultant diversion of water does not maintain or enhance the wetland.

*Objective 16<sup>4</sup> Public access to, and along, river (excluding ephemeral rivers) and lake beds is maintained and enhanced, except in circumstances where public health and safety or significant indigenous biodiversity values are at risk.*

### **Comment**

As per my assessment in APP-20191150 and of Objective 12 of the RWP, Objective 16 above, requires public access to river beds be maintained and enhanced. The trail sits above Lake Manapouri, so while this trail is not strictly to a river or a lake bed I have included it, as I consider the overall intent of the Lake 2 Lake Trail is consistent with this objective as it provides public access to these areas.

<sup>1</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037  
(ii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>2</sup> Appeal to Environment Court by (i) Federated Farmers of New Zealand ENV-2018-CHC-000040  
(ii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047  
(iii) Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

<sup>3</sup> Appeal to Environment Court by: Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

<sup>4</sup> Appeal to Environment Court by Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050.

*Objective 17<sup>5</sup> The natural character values of wetlands, rivers and lakes and their margins, including channel and bed form, rapids, seasonably variable flows and natural habitats, are protected from inappropriate use and development.*

**Comment**

Objective 17 of the pSWLP requires the natural character values of wetlands to be protected from inappropriate use and development. In terms of remediation, I acknowledge Wildlands Consultants Limited advice on 6 November 2020 that they “do not support the proposed installation of a third culvert between the two existing culverts. This would only exacerbate the adverse hydrological effects on the wetland above the cycle trail, and deliver water from it to Scotch broom scrub that does not comprise wetland vegetation below the trail.” As per my assessment of APP-20191150 the natural character will be modified both by the proposal, overall, I consider that the proposal is not in accordance with the direction of Objective 17.

*Objective 18<sup>6</sup> All activities operate in accordance with “good management practice” or better to optimise efficient resource use, safeguard the life supporting capacity of the region’s land and soils, and maintain or improve the quality and quantity of the region’s water resources.*

**Comment**

I agree with the applicant that the intent of the proposed works is in accordance with good management practice and seeks to maintain water quality overall. However, this must be viewed within the context that I consider that the adverse effects from the application on the wetland will likely be more than minor.

*Policy 32<sup>7</sup> Protect significant indigenous vegetation and significant habitats of indigenous fauna associated with natural wetlands, lakes and rivers and their margins.*

**Comment**

Policy 32 of the pSWLP requires protection of significant indigenous vegetation and significant habitat of indigenous fauna associated with natural wetlands. I note that the Ecological Assessment prepared by Beale Consultants (2018) as part of the application for APP20191150 and submitted for this application states:

*“The wetland vegetation and habitats for indigenous fauna has been assessed to be of ecological significance in terms of Section 6 (c) of the RMA. The significance assessment reflects the representativeness of the wetland vegetation within the Upukerora Ecological District, the pattern of the vegetation types associated with the wetland and its ecological context.”*

<sup>5</sup> Appeal to Environment Court by Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050

<sup>6</sup> Appeal to Environment Court by (i) Southland Fish and Game Council ENV-2018-CHC-000037  
(ii) Alliance Group Limited ENV-2018-CHC-000039  
(iii) Te Runanga o Ngai Tahu & others ENV-2018-CHC-000047

<sup>7</sup> Appeal to Environment Court by Royal Forest and Bird Protections Society of New Zealand Incorporated ENV-2018-CHC-000050



*Policy WQUAL.3 Identify and protect the significant values of wetlands and outstanding freshwater bodies.*

*Policy WQUAL.7 Recognise the social, economic and cultural benefits that may be derived from the use, development or protection of water resources.*

### **Comment**

Objective WQUAL.1 sets out the overall framework for water quality within the Southland region, and of particular relevance to this application are the requirements that water quality in the region safeguards the life-supporting capacity of water and related ecosystems and is maintained, or improved in accordance with freshwater objectives formulated under the NPS-FM. Policy WQUAL.2 sets out how maintaining water quality will be approached, and Policy WQUAL.3 directs that the significant values of wetlands need to be identified and protected.

I acknowledge that the trail is located near Lake Manapouri which is classed as Natural State Waters which must be maintained.

Policy WQUAL.7 recognises the social, economic and cultural benefits from the use, development or protection of water resources. I agree that the trail brings social, economic and cultural benefits to the Te Anau community and is a valuable recreation asset for the community and visitors to the region, so the intent of the trail largely meets Policy WQUAL.7. I also note that the Public Health South supports the social, economic and cultural benefits.

### **Biodiversity**

*Objective BIO.2 Maintain indigenous biodiversity in Southland and protect areas of significant indigenous vegetation and significant habitats of indigenous fauna for present and future generations.*

*Policy BIO.2 Areas of significant indigenous vegetation and significant habitats of indigenous fauna in the Southland region will be protected and, where appropriate, enhanced.*

*In giving effect to this policy, particular regard will be had to the following potential adverse effects:*

- (i) fragmentation of, or reduction in the extent of, significant indigenous vegetation or significant habitats of indigenous fauna;*
- (ii) fragmentation or disruption of connections and linkages between significant ecosystems or significant habitats of indigenous fauna;*
- (iii) loss of, or damage to, buffering of significant ecosystems or significant habitats of indigenous fauna;*
- (iv) loss or reduction of rare or threatened indigenous species populations or habitats.*

### **Comment**

Objective BIO.2 directs that indigenous biodiversity is maintained and that areas of significant indigenous vegetation and significant habitats are protected.

Policy BIO.2 requires that that areas of significant indigenous vegetation and significant habitats of indigenous fauna in the Southland region will be protected. Within the Ecological Assessment prepared by Beale Consultants (2018) originally prepared for APP-20191150 it outlines that the wetland vegetation and habitats for indigenous fauna has been assessed to be of ecological significance in terms of Section 6 (c) of the RMA.

To give effect to Policy BIO.2, particular regard must be had to potential adverse effects including fragmentation, reduction in the extent of, connections and linkages, loss of or damage to indigenous habitats and ecosystems. In my opinion, the modification of the wetland to install an additional (third) culvert will not protect the wetland in accordance with the outcome sought by Policy BIO.2, as the trail has resulted in the reduction of, and fragmentation of this wetland area, which has been assessed as having ecological significance, and therefore is not consistent with Policy BIO.2.

### 3.7 Relevant provisions of national policy statements (Section 104(1)(b)(iii))

#### ***National Policy Statement for Freshwater Management (NPSFM) 2014***

The NPSFM supports improved freshwater management in New Zealand. It does this by directing regional councils to establish objectives and set limits for fresh water in their regional plans. The NPSFM was amended in August 2017.

The following objectives and policies in the National Policy Statement for Freshwater Management (NPSFM) 2014 are of particular relevance to this application:

#### **Water Quality**

*Objective A1*                      *To safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, of fresh water; and the health of people and communities, in sustainably managing the use and development of land, and of discharges of contaminants.*

*Objective A2*                      *The overall quality of fresh water within a region is maintained or improved while protecting the significant values of outstanding freshwater bodies; protecting the significant values of wetlands; and improving the quality of fresh water in water bodies that have been degraded by human activities to the point of being over-allocated.*

#### **Comment**

Objectives A1 and A2 direct councils to protect the significant values of wetlands and outstanding freshwater bodies. Given that this proposal results in modification of a wetland, that the ecologist (Simon Beale) has described as being of ecological significance in terms of Section 6 (c) of the RMA. I do not consider it is in accordance with Objectives A1 and A2. I do acknowledge that the trail contributes to the health of people and communities.

#### **Integrated management**

*Objective C1*                      *To improve integrated management of fresh water and the use and development of land in whole catchments, including the interactions between fresh water, land, associated ecosystems and the coastal environment.*

*Policy C1* By every regional council managing fresh water and land use and development in catchments in an integrated and sustainable way, so as to avoid, remedy or mitigate adverse effects, including cumulative effects.

**Comment**

These provisions require that the links between land use and water quality are managed, and the applicant has applied for this consent to enable those linkages.

**Tāngata whenua roles and interests**

*Objective D1* To provide for the involvement of iwi and hapū, and to ensure that tāngata whenua values and interests are identified and reflected in the management of fresh water including associated ecosystems, and decision-making regarding freshwater planning, including on how all other objectives of this national policy statement are given effect to.

*Policy D1* Local authorities shall take reasonable steps to involve iwi and hapū in the management of fresh water and freshwater ecosystems in the region; work with iwi and hapū to identify tāngata whenua values and interests in fresh water and freshwater ecosystems in the region; and reflect tāngata whenua values and interests in the management of, and decision-making regarding, fresh water and freshwater ecosystems in the region.

**Comment**

The applicant obtained the written approval of Te Ao Marama Inc prior to notification. Te Ao Marama Inc did not submit on the notified application. Consideration of Te Tangi a Tauria and the involvement of Ngāi Tahu are consistent with and give effect to Objective D1 and Policy D1.

**3.8 Relevant provisions of National Environmental Standards and other regulations (Section 104(1)(b)(i) and (ii))**

No applicable National Environmental Standards for this activity.

**3.9 Any other matters considered relevant and reasonably necessary to determine the application (Section 104(1)(c))**

***Te Tangi a Tauria***

I consider that the provisions of Te Tangi a Tauria, the Iwi Management Plan for Southland are relevant and reasonably necessary to the determination of this application, particularly given Policy 1A of the Regional Water Plan and Policy 2 of the proposed Southland Water and Land Plan.

The policy most relevant to this application is:

**Section 3.5.18 (Repo - Wetlands)**

*Policy 1* Avoid the direct or indirect drainage or modification of any existing wetland area.

### Comment

Policy 3.5.18.1 directs to avoid drainage or modification of any existing wetland area, and this application is for the modification a wetland area through the installation of an additional culvert, proposed by the applicant as a mitigation measure. In my opinion the proposal is not consistent with this policy. I note that Te Ao Marama Inc have provided its written approval to the proposal.

### 3.10 Section 105 matters relevant to discharge or coastal permits

Section 105 matters need to be considered as the application is for a discharge that would contravene Section 15. Under Section 105, the consent authority must have regard to:

- (a) the nature of the discharge and the sensitivity of the receiving environment to adverse effects;
- (b) the applicant's reasons for the proposed choice; and
- (c) any possible alternative methods of discharge, including discharge into any other receiving environment.

The sensitivity of the receiving environment has been considered within the assessment outlined above. The applicant has proposed methods to prevent silt laden water flowing into the wetland, however as outlined above I consider that the adverse effects from the application will likely be more than minor. No alternatives were proposed by the applicant. I consider the alternatives to be either not installing the culvert and modifying a wetland, or another alternative is to install a boardwalk, as suggested by the submission of Mr Rodway.

### 3.11 Section 107 restriction on grant of certain discharge permits

Section 107(1) states that a discharge permit should not be approved if, after reasonable mixing, the contaminant is likely to give rise to adverse effects.

As has been discussed, the applicant has proposed mitigations to avoid effects on water quality.

### 3.12 Part 2 of the Resource Management Act 1991

All considerations are subject to Part 2 of the RMA, which sets out the purpose and principles that guide this legislation. This means that the matters in Part 2 prevail over other provisions of the RMA or provisions in planning instruments in the event of a conflict. Section 5 states the purpose of the RMA and sections 6, 7 and 8 are principles intended to provide additional guidance as to the way in which the purpose is to be achieved.

The purpose of the Resource Management Act, as specified in Section 5 of the Act, is *to promote the sustainable management of natural and physical resources*. It states that:

*“In this Act, “sustainable management” means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while:*

- (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations;*



*(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and  
(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.”*

The application of Section 5 involves an overall broad judgement of whether a proposal will promote the sustainable management of natural and physical resources. The enabling and managing functions found in s5(2) should be considered of equal importance and taken as a whole. Sections s6,7 and 8 provide further context and guidance to the constraints found in s5(2) (a) (b) and (c). The commencing words to these sections differ, thereby establishing the relative weight to be given to each section.

In relation to the matters outlined in Section 5 it is considered that this application is generally consistent with the purpose and the principles of the Act, as set out in Section 5. This is the promotion of the sustainable management of natural and physical resources. However, I consider that reference to Section 5 is of limited relevance when assessing the application against Policy 32 of the proposed Southland Water and Land Plan. That policy has been prepared in accordance with the RMA, gives effect to the National Policy Statement for Freshwater Management and is clear and directive. I consider that reference to Part 2 cannot justify an outcome contrary to the clear intention of that key policy. The culvert proposed for the trail would enable people and communities to provide for their social, economic, and cultural well-being and for their health and safety, but this must be viewed in context of the wetland modification within the policy context under consideration.

Part 6 matters have been covered within the various Council planning instruments, however there is one matter of national importance that needs to be recognised and provided for in the context of this application which is section 6(e). This is the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga. However, the area is not part of the Statutory Acknowledgment Area under the Ngai Tahu Claims Settlement Act 1996 and there are no known areas of cultural importance within the site. Written approval has been obtained from Te Ao Marama Inc. Consideration has also been given, as per Section 104(1) to the relevant Iwi Management Plan for Southland.

Section 7(c), the maintenance and enhancement of amenity values, Section 7(d) intrinsic values of ecosystems and Section 7(f), the maintenance and enhancement of the quality of the environment are both relevant to the wetland modification.

With regard to Section 8 of the Act, the principles of the Treaty of Waitangi have been taken into account. This is through the consideration of Te Tangi (Iwi Management Plan) and the relevant policies in other planning documents.

To provide completeness for this report, it is my view that the application is generally consistent with the RMA. However, I consider the application to be contrary to Section 7(c), 7(d) and 7 (f) of the RMA as the assessment of effects concludes that the proposal is likely to result in adverse effects on the wetland.

## 4. Recommendations

### 4.1 Whether to grant

The activities applied for have been considered together, and as such the highest consent test applies. The application is therefore considered as a **non-complying activity**.



Under Section 104D the Council may grant consent if it is satisfied that either the adverse effects will be minor, or the application will not be contrary to the objectives and policies of the relevant proposed and operative plans. If the application passes either one of these “gateways”, the application falls to be considered under Section 104(1)(a) and 104(B)(a) of the RMA and can be granted or refused. If the Council grants the application, it may impose conditions under Section 108 of the RMA.

The above report outlines the effects of the proposed activity, both adverse as well as the positive effects including positive social, cultural, economic and health benefits of the trail. When considering this application through the lens of the policies of the regional plans, it is considered that adverse effects resulting from the activity will be more than minor in terms of wetland modification. The pSWLP sets out very clear and directive objectives and policies that adverse effects of activities on wetlands should be avoided. As outlined above, the pSWLP has been prepared in accordance with the RMA, gives effect to the National Policy Statement for Freshwater Management and is clear and directive.

Having regard to all of the effects of the proposal, I conclude that the adverse effects from the proposed activity will be more than minor and I do not consider that the proposal sufficiently avoids or mitigates its adverse effects.

Because the effects of the activities have been assessed as having a more than minor effect on the environment, the application must meet the second of the gateway tests. In order to meet the second test, the application must not be contrary to the policies and objectives of the relevant operative and proposed plans.

My opinion is that the proposal is not consistent with the outcomes sought by the objectives and policies of the pSWLP. In particular, Policy 33 of the pSWLP requires that activities prevent the reduction in area, function and quality of natural wetlands, including through drainage, discharges and vegetation removal. I acknowledge that no vegetation removal is required by this proposal. Granting consent would not be consistent with this Policy 33.

Objectives 14 and 17 seek outcomes where habitats within wetlands are maintained or enhanced and the natural character values of wetlands, including natural habitats, are protected from inappropriate use and development. In my opinion granting consent would not contribute towards achieving those objectives.

As such, I conclude that the proposed activities are contrary to the objectives and policies of the pSWLP.

Therefore, the application does not meet the gateway tests for non-complying activities as set out in Section 104D (1)(a) of the RMA.

If, however, the application was considered to pass one of the gateway tests, it would fall to be considered under Section 104 of the RMA. Given my conclusion on the actual and potential effects of the proposal and the clear direction in the pSWLP, I consider that the application should not obtain consent under section 104.

However, if the Hearing Commissioner is satisfied that either the adverse effects will be minor, or the application will not be contrary to the objectives and policies of the relevant proposed and operative plans they can refuse or grant the application and impose conditions. I have included draft conditions in the appendices in the event that the Hearing Commissioner chooses to grant the application.



Sonya Nicol  
**Consultant Consents Officer**

RECOMMENDATIONS IN COUNCIL REPORTS ARE NOT TO BE CONSTRUED  
AS COUNCIL POLICY UNLESS ADOPTED BY COUNCIL

## Discharge Permit

Pursuant to Section 104B of the Resource Management Act 1991, a resource consent is hereby granted by the Southland Regional Council to **Fiordland Trails Trust at Leg 6 of the Lake 2 Lake Trail, Fiordland** from **xx March 2020**.

**Please read this Consent carefully, and ensure that any staff or contractors carrying out activities under this Consent on your behalf are aware of all the conditions of the Consent.**

### Details of Permit

Purpose for which permit is granted: To discharge water from the third culvert at Leg 6 of the Lake 2 Lake Te Anau to Manapouri Trail to the wetland.

Location - site locality Leg 6 of the Lake 2 Lake Cycle Trail between chainage 2200 and 2300  
- map reference 1180612E, N4942051 and 1180593 E, 4942084  
- catchment Waiau River  
- FMU Waiau

Legal description of land at the site: Public Land, owned by the Crown

**Expiry date: xx March 2045**

### Conditions

#### General conditions

1. This consent authorises the discharge of water from the third culvert at Leg 6 of the Lake 2 Lake Te Anau to Manapouri Trail to the wetland, as described in the application for resource consent dated 7 October 2019. The discharge shall:
  - (a) The discharge will be surface water and/or groundwater only and will not include any contaminants from other sources.
2. The discharge authorised by this permit shall not give rise to any of the following effects in the wetland outside the zone of reasonable mixing:
  - a) The production of any conspicuous oil or grease films, scums or foams or floatable or suspended material;

- b) Any conspicuous change in colour or visual clarity;
  - c) An emission of objectionable odour; and
  - d) Adverse effects on aquatic life.
3. The zone of reasonable mixing shall extend 20 metres downstream from the discharge point.
  4. The consent holder shall take all reasonable precautions to minimise the spread of pest plants and aquatic weeds. In particular, the consent holder shall:
    - (a) to avoid the spread of the *didymosphenia geminata* or any other pest plant, do not use any equipment that has been used in any area where the pest plant(s) are known to be present in the previous 20 working days, unless it has been thoroughly cleansed.
  5. Prior to the first exercise of this consent, the Consent Holder shall notify the Consent Authority of the identity of the person in charge of this consent. If a new operator is appointed, the Consent Holder shall notify the Consent Authority within five working days (escompliance@es.govt.nz).
  6. In the event of the failure or any other event that may result in a spill or contamination of a waterway that may have significant adverse effect on water quality, the Consent Holder shall notify, as soon as reasonably practicable, the following:
    - (a) the Consent Authority (ph 03 211 5115 or 03 211 5225 after hours).
  7. In the event of a discovery, or suspected discovery, of a site of cultural importance (Waahi Taonga/Tapu) during the construction, the consent holder shall immediately cease operations in that location and inform the local iwi authority (Te Ao Marama Inc, phone 03 931 1242). Operations may recommence at a time as agreed upon in writing with the Consent Authority. The discovery of Koiwi (human skeletal remains) or Taonga or artefact material (e.g. pounamu/greenstone) would indicate a site of cultural importance. Appendix B to this consent outlines the process that is to be followed in the event of such a discovery.
  8. The consent holder shall pay administration, consent monitoring and research & monitoring charges to the Consent Authority collected in accordance with Section 36 of the Resource Management Act, payable in advance on 1 July each year.
  9. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action being taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purposes of:
    - (a) determining whether the conditions of this permit are adequate to deal with any adverse effect on the environment, including cumulative effects, which may arise from the exercise of the permit, and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the permit;
    - (b) ensuring the conditions of this consent are consistent with any National Environmental Standards Regulations, relevant plans and/or the Environment Southland Regional Policy Statement;
    - (c) amending the monitoring programme to be undertaken;
    - (d) adding or adjusting compliance limits;

- (e) Ensuring the Waiau Freshwater Management Unit meets the freshwater objectives and freshwater quality limits set in an operative regional plan pursuant to Policy A1 of the National Policy Statement for Freshwater Management; and
- (f) requiring the consent holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this permit.

for the **Southland Regional Council**

### **Consents Manager**

#### **Notes:**

1. *In accordance with Section 125(1)(a) of the Resource Management Act, this consent shall lapse after a period of five years after the date of commencement unless it is given effect to or an application is made to extend the lapse period before the consent lapses.*
2. *Section 126 of the Resource Management Act provides for this resource consent to be cancelled if the consent has been exercised in the past but has not been exercised during the preceding five years.*
3. *If you require a replacement permit upon the expiry date of this permit, any new application should be lodged at least six months prior to the expiry date of this permit. Applying at least six months before the expiry date may enable you to continue to exercise this permit until a decision is made, and any appeals are resolved, on the replacement application.*
4. *The Consent Holder shall pay an annual administration and monitoring charge to the Consent Authority, collected in accordance with Section 36 of the Resource Management Act, 1991. This charge may include the costs of inspecting the site up to two times each year (or otherwise as set by the Consent Authority's Annual Plan) .*
5. *Avoid spreading Didymo – Environment Southland strongly recommends that the consent holder, and any person or contractor engaged by the consent holder to carry out the works authorised by this consent, use the “check, clean, dry” management approach as set out in the Biosecurity Management Guidelines (available at [www.biosecurity.govt.nz](http://www.biosecurity.govt.nz) or from Environment Southland) when entering and leaving the river environs.*

**Appendix A: Protocol in the event of a discovery, or suspected discovery, of a site of cultural importance (Waahi Taonga/Tapu)**

**1. Kōiwi tangata accidental discovery**

If Kōiwi tangata (human skeletal remains) are discovered, then work shall stop immediately and the New Zealand Police, Heritage New Zealand (details below) and Te Ao Marama Inc (Ngai Tahu (Murihiku) Resource Management Consultants) shall be advised. Contact details for Te Ao Marama Inc are as follows:

Te Ao Marama Inc  
Murihiku Marae, 408 Tramway Road, Invercargill  
P O Box 7078, South Invercargill 9844  
Phone: (03) 931 1242

Te Ao Marama Inc will arrange a site inspection by the appropriate Tangata Whenua and their advisers, including statutory agencies, who will determine how the situation will need to be managed in accordance with tikanga māori.

**2. Archaeological Sites**

Archaeological sites are protected under the Heritage New Zealand Pouhere Taonga Act (2014), and approval is required from Heritage New Zealand before archaeological sites can be modified, damaged or destroyed.

Not all archaeological sites are known or recorded precisely. Where an archaeological site is inadvertently disturbed or discovered, further disturbance must cease until approval to continue is obtained from Heritage New Zealand. As stated above, the New Zealand Police and Te Ao Marama Inc also need to be advised if the discovery includes kōiwi tangata /human remains.

Heritage New Zealand  
C/- Dr M Schmidt, Regional Archaeologist Otago/Southland  
PO Box 5467, Dunedin 9058  
Phone: (03) 470 2364      Mobile 027 240 8715      mschmidt@heritage.org.nz

**3. Taonga or artefact accidental discovery**

If taonga or artefact material (e.g. pounamu/greenstone artefacts) other than kōiwi tangata is discovered, disturbance of the site shall cease immediately and Southland Museum and Te Ao Marama Inc shall be notified of the discovery by the finder or site archaeologist in accordance with the Protected Objects Act 1975. All taonga tuturu are important for their cultural, historical and technical value and are the property of the Crown until ownership is resolved.

**4. In-situ (natural state) pounamu/greenstone accidental discovery**

Pursuant to the Ngai Tahu (Pounamu Vesting) Act 1997, all natural state pounamu/greenstone in the Ngai Tahu tribal area is owned by Te Runanga o Ngai Tahu. Ngai Tahu Pounamu Management Plans provide for the following measures:

- any *in-situ* (natural state) pounamu/greenstone accidentally discovered should be reported to Te Runanga o Ngai Tahu staff as soon as is reasonably practicable. Te Runanga o Ngai Tahu staff will in turn contact the appropriate Kaitiaki Papatipu Runanga;

- in the event that the finder considers the pounamu is at immediate risk of loss such as erosion, animal damage to the site or theft, the pounamu/greenstone should be carefully covered over and/or relocated to the nearest safe ground.

The find should then be notified immediately to the Programme Leader – Ohanga, at Te Rūnanga o Ngāi Tahu. Their details are as follows:

Te Rūnanga o Ngāi Tahu  
C/- Programme Leader - Ohanga  
Te Whare o Te Wai Pounamu  
15 Show Place, P O Box 13-046, Otautahi/Christchurch 8021  
Phone: (03) 366 4344      Web: [www.ngaitahu.iwi.nz](http://www.ngaitahu.iwi.nz)

## Land Use Consent

Pursuant to Section 104A of the Resource Management Act 1991, a resource consent is hereby granted by the Southland Regional Council to **Fiordland Trails Trust at Leg 6 of the Lake 2 Lake Trail, Fiordland** from **xx March 2020**.

**Please read this Consent carefully, and ensure that any staff or contractors carrying out activities under this Consent on your behalf are aware of all the conditions of the Consent.**

### Details of Permit

Purpose for which permit is granted:	Wetland modification associated with the installation and use of a third culvert at Leg 6 of the Lake 2 Lake Te Anau to Manapouri Trail
Location	Leg 6 of the Lake 2 Lake Cycle Trail between chainage 2200 and 2300
- site locality	
- map reference	1180612E, N4942051 and 1180593 E, 4942084
- catchment	Waiau River
Legal description of land at the site:	Public Land, owned by the Crown
Expiry date:	<b>xx March 2045</b>

### Schedule of Conditions

1. This consent authorises wetland modification associated with the installation and use of a third culvert at Leg 6 of the Lake 2 Lake Te Anau at the location specified above, as described in the application for resource consent dated 9 October 2019.
2. The culvert shall be sized and constructed as detailed in the application and located within the area as identified and described in the application. This resource consent does not authorise culvert or wetland modification works outside of the scope, scale and location outlined in the application.
3. The consent holder shall notify the Consent Authority in writing ([escompliance@es.govt.nz](mailto:escompliance@es.govt.nz)) on commencement and upon completion of the works.



4. The consent holder shall ensure that:
  - a) contaminants, other than sediment, but including cement and oil are prevented from entering the waterway during the construction works;
  - b) all reasonable steps shall be taken to minimise the release of sediment to water;
  - c) the structure and approaches are constructed so that run-off from the structure is discharged to land rather than directly to the stream/river;
  - d) fish passage is not impeded as a result of the works;
  - e) all construction equipment, machinery, plant, and debris are removed from the site on completion of the works;
  - f) silt disturbance and instream works are kept to a minimum;
  - g) no washing of equipment occurs in the stream/river;
  - h) the batters of the cycle trail shall be resown upon completion of the works;
  - i) works shall, as far as practicable, be undertaken when flows in the watercourse are low.
5. The consent holder shall ensure that the culvert authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage.
6. The consent holder shall visually inspect the culvert authorised by this consent every two months to check for any indication of scour erosion at the culvert inlet and outlet and to ensure it is maintained in sound structural condition.
7. In the event of any contamination of the watercourse the consent holder shall remove the contaminants immediately from the site and notify, without undue delay, the Consent Authority.
8. There shall be no disturbance of the roosting and nesting areas of the black fronted tern, black billed gull, and banded and black fronted dotterel, or the feeding areas of the banded and black fronted dotterel, as a result of the exercise of this consent.
9. The consent holder shall take all reasonable precautions to minimise the spread of pest plants and aquatic weeds. In particular, the consent holder shall:
  - a) remove any vegetation caught on the machinery;
  - b) where necessary, clear vegetation from the site;
  - c) avoid working in areas where aquatic weeds such as *Lagarosiphon major* are known to be present (for information, contact Environment Southland); and
  - d) to avoid the spread of the *didymosphenia geminata* or any other pest plant, do not use machinery that has been used in any area where the pest plant(s) are known to be present in the previous 20 working days, unless it has been thoroughly cleansed.
10. The consent holder shall pay an annual administration and monitoring charge to the Consent Authority, collected in accordance with Section 36 of the Resource Management Act, 1991. This charge may include the costs of inspecting the site upon completion of the works (or otherwise as set by the Consent Authority's Annual Plan).
11. In the event of a discovery, or suspected discovery, of a site of cultural importance (Waahi Taonga/Tapu) during the construction, the consent holder shall immediately cease operations in that location and inform the local iwi authority (Te Ao Marama Inc, phone 03 931 1242). Operations may recommence at a time as agreed upon in writing with the Consent Authority. The discovery of Koiwi (human skeletal remains) or Taonga or artefact material (e.g. pounamu/greenstone) would indicate a site of cultural importance. Appendix A to this consent outlines the process that is to be followed in the event of such a discovery.

12. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action being taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purposes of:
- a) determining whether the conditions of this permit are adequate to deal with any adverse effect on the environment, including cumulative effects, which may arise from the exercise of the permit, and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the permit;
  - b) ensuring the conditions of this consent are consistent with any National Environmental Standards Regulations, relevant plans and/or Policy Statement;
  - c) amending the monitoring programme to be undertaken; or
  - d) adding or adjusting compliance limits.

for the **Southland Regional Council**

**Consents Manager**

**Notes:**

1. *Avoid spreading Didymo – Environment Southland strongly recommends that the consent holder, and any person or contractor engaged by the consent holder to carry out the works authorised by this consent, use the “check, clean, dry” management approach as set out in the Biosecurity Management Guidelines (available at [www.biosecurity.govt.nz](http://www.biosecurity.govt.nz) or from Environment Southland) when entering and leaving the river environs.*

**Appendix A: Protocol in the event of a discovery, or suspected discovery, of a site of cultural importance (Waahi Taonga/Tapu)**

**1. Kōiwi tangata accidental discovery**

If Kōiwi tangata (human skeletal remains) are discovered, then work shall stop immediately and the New Zealand Police, Heritage New Zealand (details below) and Te Ao Marama Inc (Ngai Tahu (Murihiku) Resource Management Consultants) shall be advised. Contact details for Te Ao Marama Inc are as follows:

Te Ao Marama Inc  
Murihiku Marae, 408 Tramway Road, Invercargill  
P O Box 7078, South Invercargill 9844  
Phone: (03) 931 1242

Te Ao Marama Inc will arrange a site inspection by the appropriate Tangata Whenua and their advisers, including statutory agencies, who will determine how the situation will need to be managed in accordance with tikanga māori.

**2. Archaeological Sites**

Archaeological sites are protected under the Heritage New Zealand Pouhere Taonga Act (2014), and approval is required from Heritage New Zealand before archaeological sites can be modified, damaged or destroyed.

Not all archaeological sites are known or recorded precisely. Where an archaeological site is inadvertently disturbed or discovered, further disturbance must cease until approval to continue is obtained from Heritage New Zealand. As stated above, the New Zealand Police and Te Ao Marama Inc also need to be advised if the discovery includes kōiwi tangata /human remains.

Heritage New Zealand  
C/- Dr M Schmidt, Regional Archaeologist Otago/Southland  
PO Box 5467, Dunedin 9058  
Phone: (03) 470 2364      Mobile 027 240 8715      mschmidt@heritage.org.nz

**3. Taonga or artefact accidental discovery**

If taonga or artefact material (e.g. pounamu/greenstone artefacts) other than kōiwi tangata is discovered, disturbance of the site shall cease immediately and Southland Museum and Te Ao Marama Inc shall be notified of the discovery by the finder or site archaeologist in accordance with the Protected Objects Act 1975. All taonga tuturu are important for their cultural, historical and technical value and are the property of the Crown until ownership is resolved.

**4. In-situ (natural state) pounamu/greenstone accidental discovery**

Pursuant to the Ngai Tahu (Pounamu Vesting) Act 1997, all natural state pounamu/greenstone in the Ngai Tahu tribal area is owned by Te Runanga o Ngai Tahu. Ngai Tahu Pounamu Management Plans provide for the following measures:

- any *in-situ* (natural state) pounamu/greenstone accidentally discovered should be reported to Te Runanga o Ngai Tahu staff as soon as is reasonably practicable. Te Runanga o Ngai Tahu staff will in turn contact the appropriate Kaitiaki Papatipu Runanga;
- in the event that the finder considers the pounamu is at immediate risk of loss such as erosion, animal damage to the site or theft, the pounamu/greenstone should be carefully covered over and/or relocated to the nearest safe ground.

The find should then be notified immediately to the Programme Leader – Ohanga, at Te Rūnanga o Ngāi Tahu. Their details are as follows:

Te Rūnanga o Ngāi Tahu  
C/- Programme Leader - Ohanga  
Te Whare o Te Wai Pounamu  
15 Show Place, P O Box 13-046, Otautahi/Christchurch 8021  
Phone: (03) 366 4344      Web: [www.ngaitahu.iwi.nz](http://www.ngaitahu.iwi.nz)

DRAFT

## Water Permit

Pursuant to Section 104B of the Resource Management Act 1991, a resource consent is hereby granted by the Southland Regional Council to **Fiordland Trails Trust at Leg 6 of the Lake 2 Lake Trail, Fiordland** from **xx March 2020**.

**Please read this Consent carefully, and ensure that any staff or contractors carrying out activities under this Consent on your behalf**

### Details of Permit

Purpose for which permit is granted:	To divert surface water and groundwater through the third culvert at Leg 6 of the Lake 2 Lake Te Anau to Manapouri Trail
Location	- site locality Leg 6 of the Lake 2 Lake Cycle Trail between chainage 2200 and 2300
	- map reference 1180612E, N4942051 and 1180593 E, 4942084
	- catchment Waiau River
	- FMU Waiau
Legal description of land at the site:	Public Land, owned by the Crown
Expiry date:	<b>xx March 2045</b>

### Schedule of Conditions

1. This consent authorises the diversion of surface water from the unnamed stream and/or groundwater as described in the application for resource consent dated 7 October 2019.
2. The consent holder shall take all reasonable precautions to minimise the spread of pest plants and aquatic weeds. In particular, the consent holder shall:
  - (a) to avoid the spread of the *didymosphenia geminata* or any other pest plant, do not use equipment that has been used in any area where the pest plant(s) are known to be present in the previous 20 working days, unless it has been thoroughly cleansed.

3. The consent holder shall pay administration, consent monitoring and research & monitoring charges to the Consent Authority collected in accordance with Section 36 of the Resource Management Act, payable in advance on 1 July each year.
4. In the event of a discovery, or suspected discovery, of a site of cultural importance (Waahi Taonga/Tapu) during the construction, the consent holder shall immediately cease operations in that location and inform the local iwi authority (Te Ao Marama Inc, phone 03 931 1242). Operations may recommence at a time as agreed upon in writing with the Consent Authority. The discovery of Koiwi (human skeletal remains) or Taonga or artefact material (e.g. pounamu/greenstone) would indicate a site of cultural importance. Appendix A to this consent outlines the process that is to be followed in the event of such a discovery.
5. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action being taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purposes of:
  - a. determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; and
  - b. ensuring the conditions of this consent are consistent with any National Environmental Standards Regulations, relevant plans and/or the Environment Southland Regional Policy Statement.

**Notes:**

1. *In accordance with Section 125(1)(a) of the Resource Management Act, this consent shall lapse after a period of five years after the date of commencement unless it is given effect to or an application is made to extend the lapse period before the consent lapses.*
2. *Section 126 of the Resource Management Act provides for this resource consent to be cancelled if the consent has been exercised in the past but has not been exercised during the preceding five years.*
3. *If you require a replacement permit upon the expiry date of this permit, any new application should be lodged at least six months prior to the expiry date of this permit. Applying at least six months before the expiry date may enable you to continue to exercise this permit until a decision is made, and any appeals are resolved, on the replacement application.*
4. *Avoid spreading Didymo – Environment Southland strongly recommends that the consent holder, and any person or contractor engaged by the consent holder to carry out the works authorised by this consent, use the “check, clean, dry” management approach as set out in the Biosecurity Management Guidelines (available at [www.biosecurity.govt.nz](http://www.biosecurity.govt.nz) or from Environment Southland) when entering and leaving the river environs.*

for the **Southland Regional Council**

**Consents Manager**

**Appendix A: Protocol in the event of a discovery, or suspected discovery, of a site of cultural importance (Waahi Taonga/Tapu)**

**1. Kōiwi tangata accidental discovery**

If Kōiwi tangata (human skeletal remains) are discovered, then work shall stop immediately and the New Zealand Police, Heritage New Zealand (details below) and Te Ao Marama Inc (Ngai Tahu (Murihiku) Resource Management Consultants) shall be advised. Contact details for Te Ao Marama Inc are as follows:

Te Ao Marama Inc  
Murihiku Marae, 408 Tramway Road, Invercargill  
P O Box 7078, South Invercargill 9844  
Phone: (03) 931 1242

Te Ao Marama Inc will arrange a site inspection by the appropriate Tangata Whenua and their advisers, including statutory agencies, who will determine how the situation will need to be managed in accordance with tikanga māori.

**2. Archaeological Sites**

Archaeological sites are protected under the Heritage New Zealand Pouhere Taonga Act (2014), and approval is required from Heritage New Zealand before archaeological sites can be modified, damaged or destroyed.

Not all archaeological sites are known or recorded precisely. Where an archaeological site is inadvertently disturbed or discovered, further disturbance must cease until approval to continue is obtained from Heritage New Zealand. As stated above, the New Zealand Police and Te Ao Marama Inc also need to be advised if the discovery includes kōiwi tangata /human remains.

Heritage New Zealand  
C/- Dr M Schmidt, Regional Archaeologist Otago/Southland  
PO Box 5467, Dunedin 9058  
Phone: (03) 470 2364      Mobile 027 240 8715      mschmidt@heritage.org.nz

**3. Taonga or artefact accidental discovery**

If taonga or artefact material (e.g. pounamu/greenstone artefacts) other than kōiwi tangata is discovered, disturbance of the site shall cease immediately and Southland Museum and Te Ao Marama Inc shall be notified of the discovery by the finder or site archaeologist in accordance with the Protected Objects Act 1975. All taonga tuturu are important for their cultural, historical and technical value and are the property of the Crown until ownership is resolved.

**4. In-situ (natural state) pounamu/greenstone accidental discovery**

Pursuant to the Ngai Tahu (Pounamu Vesting) Act 1997, all natural state pounamu/greenstone in the Ngai Tahu tribal area is owned by Te Runanga o Ngai Tahu. Ngai Tahu Pounamu Management Plans provide for the following measures:

- any *in-situ* (natural state) pounamu/greenstone accidentally discovered should be reported to Te Runanga o Ngai Tahu staff as soon as is reasonably practicable. Te Runanga o Ngai Tahu staff will in turn contact the appropriate Kaitiaki Papatipu Runanga;
- in the event that the finder considers the pounamu is at immediate risk of loss such as erosion, animal damage to the site or theft, the pounamu/greenstone should be carefully covered over and/or relocated to the nearest safe ground.

The find should then be notified immediately to the Programme Leader – Ohanga, at Te Rūnanga o Ngāi Tahu. Their details are as follows:

Te Rūnanga o Ngāi Tahu  
C/- Programme Leader - Ohanga  
Te Whare o Te Wai Pounamu  
15 Show Place, P O Box 13-046, Otautahi/Christchurch 8021  
Phone: (03) 366 4344      Web: [www.ngaitahu.iwi.nz](http://www.ngaitahu.iwi.nz)



Our Ref: 4957d

6 November 2019

Sonya Nicol  
Environment Southland  
Private Bag 90116  
INVERCARGILL 9840

Dear Sonya

## REVIEW OF EFFECTS OF THE FIORDLAND TRAIL ON WETLAND VALUES

Environment Southland have received a retrospective resource consent application (APP-20191150 W4931) from the Fiordland Trails Trust to modify a wetland due to construction of a multi-use trail on the eastern margin of Lake Manapouri. The trail crosses the wetland approximately two kilometres northeast of Manapouri township. Environment Southland required an independent assessment of the likely effects of trail construction on the wetland, which was provided by Wildland Consultants early in 2019 and in response to subsequent developments (Wildland Consultants 2019a; 2019b; 2019c).

More recently, the applicant has applied for a new consent to divert surface water, divert ground water, and modify the wetland. This is required to implement the suggestion from a hydrological expert to install an additional culvert beneath the trail, believed necessary to fully address the hydrological effects of track construction (Geosolve 2019).

All of the previous opinions provided by Wildland Consultants was done so on a desktop basis, without having visited the site, which limited the accuracy of these opinions. A site visit was therefore undertaken on 4 November 2019 to assess the wetland in the field and to assess the effects of the proposed third culvert.

### VEGETATION

The site visit was helpful in clarifying the location of wetland and other vegetation at the site.

Upstream of the cycle trail, wetland vegetation occupies the floor of a shallow, 30-40 metre wide gully, with wetland sedges dominant on stream sides (Plate 1) but also dispersed through the manuka (*Leptospermum scoparium*) shrubland that occupies much of the gully floor (Plate 2). Mingimingi (*Coprosma propinqua*), weeping mapou (*Myrsine divaricata*), and *Coprosma dumosa* are common shrubs in the mānuka shrubland, with occasional Scotch broom (*Cytisus scoparius*) and blackberry (*Rubus fruticosus*). Rautahi (*Carex geminata*) is the dominant sedge, with pukio (*Carex secta*) on some stream margins. Shield fern (*Polystichum vestitum*) is common

in the ground layer, with occasional swamp kiokio (*Blechnum minus*) and lotus (*Lotus pedunculata*). Sharp spike sedge (*Eleocharis acuta*) and Edgar's rush (*Juncus edgariae*) are present in open areas. Areas with slightly better drainage have seedlings of kapuka/broadleaf (*Griselinia littoralis*), kōhūhū (*Pittosporum tenuifolium*), and horoeka/lancewood (*Pseudopanax crassifolius*) beneath the mānuka canopy, or support patches of bracken (*Pteridium esculentum*) fernland.

Below the cycle trail, wetland vegetation is largely confined to the margins of the two streams that pass through culverts in the trail. Pukio is the dominant sedge (Plate 3), and water cress (*Nasturtium microphyllum*) is present in the open stream bed.

Scrub dominated by Scotch broom occurs between the two streams. Shrubs of cotoneaster (*Cotoneaster simsonii*), mingimingi, rowan (*Sorbus aucuparia*), and Darwin's barberry (*Berberis darwinii*) are also present, and lianes of pohuehue (*Muehlenbeckia australis*) and lawyer (*Rubus schmidelioides*) occupy the scrub canopy. Sweet vernal (*Anthoxanthum odoratum*) and bracken are present in the ground layer.

During construction of the trail, excavated substrate has been dumped on either side of the cycle trail, mostly on the downstream side, but in one location on the upstream side (Plate 4). These now form spoil mounds covered by exotic grasses and indigenous fireweed (*Senecio minimus* and *S. glomeratus*).

### **EFFECTS OF CYCLE TRAIL CONSTRUCTION**

The main effects of cycle trail construction are through loss of indigenous vegetation, including wetland vegetation, beneath the footprint of the trail and associated spoil dumps, and modification to wetland hydrology caused by excavation of a ditch on the upstream side of the trail.

The applicant has agreed that the ditch excavated on the upstream side of the formed trail (Plate 5) should be filled in, monitoring of the infilled area should be undertaken to check for settling of the substrate (with re-filling if required), and monitoring of subsequent colonisation by rautahi should be undertaken. The ditch should be filled in to a level consistent with the level of the adjacent upstream wetland surface (Plate 5). This may require raising the height of the cycle trail to prevent water flowing over it.

The applicant has agreed to undertake these works and monitoring. If the infilling work is carried out successfully, this should remedy the adverse hydrological effects on the wetland to the point that they are less than minor (Wildland Consultants 2019c).

In addition to this, we suggest that the spoil mound in the wetland upstream of the cycle trail be removed – it could potentially be used to infill the ditch. Removal of this mound would enable wetland vegetation to re-colonise the area. The mound should be carefully removed to reinstate the original ground level of the wetland, consistent with the adjacent ground surfaces. This will allow the substrate to become wetted, and colonised over time by indigenous wetland vegetation.

We **do not support** the proposed installation of a third culvert between the two existing culverts. This would only exacerbate the adverse hydrological effects on the wetland above the cycle trail, and deliver water from it to Scotch broom scrub that does not comprise wetland vegetation below the trail.

While we earlier noted that the trail would reduce water flow to the ‘larger downstream part of the wetland’ (Wildland Consultants 2019a) this desktop assessment was made based on the wetland area depicted in Figure 8-1 of the ecological report (Beale Consultants 2018) accompanying the application. As noted above, field assessment indicated that wetland vegetation downstream of the cycle trail is largely confined to stream margins, and much of the vegetation mapped as wetland by Beale Consultants (2018) comprises bracken fernland, mānuka scrub, and Scotch broom scrub. Therefore there is no need for any additional work to restore water flows downstream of the cycle trail; the existing culverts in the stream bases perform this adequately.

### **PROPOSED WEED CONTROL**

The Trust has proposed to control pest plant species including gorse (*Ulex europaeus*), Scotch broom, and Darwin’s barberry in an approximate 2,000 m<sup>2</sup> area centred on the trail where it crosses the wetland. This would improve indigenous plant dominance within the wetland and adjacent areas. The Trust would also discuss removal of the upstream willow trees with the landholder.

Having undertaken field work at the site, we suggest the focus of weed control work should be on the entire area of wetland above the cycle trail and below the deer fence that marks the boundary of the neighbouring property. The main weeds to be controlled in this area of wetland vegetation are Scotch broom and blackberry, and any invading rowan, cotoneaster, and Darwin’s barberry. We also suggest removing the mature rowan tree approximately 15 metres downstream of the cycle trail, and any associated rowan regeneration.

Observation of the neighbouring upstream willow trees from the property boundary indicated the willow was not crack willow (*Salix fragilis*) and may not be a species that is notable for spread. However, as a precautionary measure there would still be merit in removing them.

### **EVALUATION**

If weed control is focused on the entire wetland area above the cycle trail, the spoil dump is removed from this wetland, and the upstream ditch beside the trail is filled in, this would remedy some of the adverse effects on the wetland and provide positive effects that would address the residual adverse effects of wetland clearance.

The mature rowan tree below the cycle trail, and nearby regenerating rowan, could also be controlled.

Performance standards, such as post-operational inspection and reporting, should be implemented. This will ensure that spoil removal and ditch infilling have been undertaken appropriately, and that the weed control is effective and that it is not adversely affecting indigenous vegetation.

Ongoing discussion by the Trust with the upstream landholder is supported; if this also enabled the upstream willow trees to be controlled, that would be very positive.

### **CONCLUSION**

In our opinion, if the adverse effects of spoil dumping and ditch excavation on the upstream wetland are remedied, then the residual adverse effects of wetland vegetation clearance caused by track construction can be addressed by the positive effects of weed control over the entire

upstream wetland (an area of approximately 1,500 m<sup>2</sup>), and additional control of rowan downstream of the cycle trail. Overall, the ecological effects on the wetland should be no more than minor if these actions are undertaken with sufficient care and diligence.

Please don't hesitate to contact me if you require further input or discussion.

Yours sincerely



Kelvin Lloyd  
Principal Ecologist

### **REFERENCES**

- Beale Consultants 2018: Te Anau - Manapouri multi-purpose trail. Ecological assessment of Leg 6 wetland crossing. Prepared for the Fiordland Trails Trust. 3 pp.
- Geosolve 2019: Hydrology review Fiordland Trails Trust Lake 2 Lake Leg 6. Unpublished contract report prepared for Fiordland Trails Trust. 3 pp.
- Robertson H.A., Ausseil A-G., Rance B., Betts H., and Pomeroy E. In press. Loss of wetlands since 1990 in Southland, New Zealand. *New Zealand Journal of Ecology* 43: in press.
- Wildland Consultants 2019a: Review of effects of Fiordland Trail on wetland values. *Wildland Consultants Ltd Contract Report No. 4957*. Prepared for Environment Southland.
- Wildland Consultants 2019b: Review of effects of Fiordland Trail on wetland values. *Wildland Consultants Ltd Contract Report No. 4957b*. Prepared for Environment Southland.
- Wildland Consultants 2019c: Review of effects of Fiordland Trail on wetland values. *Wildland Consultants Ltd Contract Report No. 4957c*. Prepared for Environment Southland.





Plate 1: Dense sedgeland beside the northern stream above the cycle trail, with watercress occupying the open stream channel. 4 November 2019.



Plate 2: Sedges dispersed through mānuka scrub above the cycle trail, indicating wetland conditions. 4 November 2019.





Plate 3: Dense pukio sedges beside the southern stream below the cycle trail. 4 November 2019.



Plate 4: Exotic grasses dominate a mound created by dumping of spoil in the wetland upstream of the cycle trail. This mound should be removed and the original wetland ground surface restored. 4 November 2019.





Plate 5: The excavated ditch on the upstream side of the cycle trail that is resulting in adverse hydrological effects on the upstream wetland. 4 November 2019.

To: The Chief Executive  
Environment Southland  
Private Bag 90116  
DX20175  
Invercargill

## SUBMISSION FORM

Submission on a Notified Application for a Resource Consent

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I: Bill Jarvie (Name(s))  
of: Fish and Game Southland (Address)  
at: 17 Eye Street, PO Box 159, Invercargill, 9840 SOUTHLAND@fishandgame.org.nz  
(Phone) (Fax) (E-mail)

Wish to ~~SUPPORT~~ / ~~OPPOSE~~ / submit a **NEUTRAL** submission on (circle one) the application of:

Name: \_\_\_\_\_  
And/or Organisation: Fiordland Trails Trust (FTT)  
Application Number: APP-20191703 Location: Leg 6, Lake2Lake Trail, Manapouri

My reasons for my submission are: (State the nature of your submission and give clear reasons. Continue on attached pages if necessary)



I wish the Council to make the following decision *(Give precise details, including the nature of any conditions sought)*

I, ~~am~~/am not *(choose one)* a trade competitor\* of the applicant (for the purposes of Section 308B of the Resource Management Act 1991).

*\*If trade competitor chosen, please complete the next statement, otherwise leave blank*

I, am/am not *(choose one)* directly affected by an effect as a result of the proposed activity in the application that:

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition.

I, ~~do~~/do not *(choose one)* wish to be heard in support of my submission.

I, ~~do~~/do not *(choose one)* wish to be involved in any pre-hearing meeting that may be held for this application.

I have served a copy of my submission on the applicant.  Yes  No

Signed W. Jennie Date 27/02/2020

If you have any queries about this form or its purpose please contact the Consents Division of Environment Southland (03) 211 5115 or 0800 76 88 45.

To the Chief Executive  
Environment Southland  
Private Bag 90116  
DX20175  
Invercargill

Submission on a notified Application for a Resource Consent

**I, Maurice Allan Rodway of 48 Ruru Ave, R D 9 Invercargill**

Phone 027 221 5801, email: [maurice.rodway@gmail.com](mailto:maurice.rodway@gmail.com)

**Wish to oppose the application of the Fiordland Lakes Trust (APP-20191703)**

for a resource consent for a period of 25 years for the diversion of surface water, the diversion of groundwater and for wetland modification associated within the installation of a third culvert at Leg 6 of the Lake 2 Lake Te Anau to Manapouri Multi Use Trail;

to install a third culvert, diversion of surface water and groundwater and wetland modification associated with a section of the Lake 2 Lake Te Anau to Manapouri Multi Use Trail.

Location: Leg 6 of the Lake 2 Lake Trail between chainage 2200 and 2300 at about NZTM2000 1180612E, N4942051 and 1180593E and N4942084

**The reason for my submission** is that the proposal does not adequately remedy the adverse effects of building a cycleway over a naturally occurring wetland. The original retrospective application to modify the wetland did not comply with the proposed Southland Water and Land Plan and the council's planner recommended that the consent not be granted. This proposal does not go far enough to remedy the situation and so would still not be compliant with the plan. Granting a consent which allows the degradation of a natural wetland is contrary to the Draft National Policy of Freshwater Management (Sept 2019) which states that Regional Councils must include in its regional policy statement the following policy (or words to the same effect): "The loss or degradation of all or any part of a natural inland wetland is avoided." The draft NPS also provides for protection of streams, and fish passage which are both affected by this activity. The proposed new culvert does not address these issues. The proposed NPS is not a legal requirement yet but it does signal the government's intention and will likely be in force in 2020. The proposed National Environmental Standards for Freshwater are also very protective of wetlands and should be considered in making a decision on this application.

The proposal does not intend to remedy the diversion of surface water and groundwater elsewhere on the trail, specifically in an area immediately to the south of the wetland where the trail intercepts groundwater and diverts it into a channel beside the trail for a distance of at least 50m. The diversion of this groundwater has the potential to dry out the land on the downstream side of the trail over this distance and change the plant composition there,

especially allowing the establishment of exotic shrubs and other plants that are tolerant of dryer conditions.

**I wish the council to make the following decision.**

Decline this application.

I suggest that, rather than installing another small diameter culvert, the applicants consider building a bridge or boardwalk over the wetland so that it either completely spans the area that is a wetland or installs a minimum number of piles to support a structure that provides for a cycleway but does not interfere with the flow of water through the wetland and stream and allows natural wetland vegetation that was smothered by the original construction of the cycleway to regenerate and so restore the wetland and stream to what it was before the cycleway was built.

There have been recommendations by Kelvin Lloyd of Wildlands that controlling weed species in or near the wetland would reduce the adverse effects of the cycleway to being less than minor. In my opinion this would not be the case. While weed control in the vicinity of the cycleway is desirable and should be a condition of the consent anyway this would not restore the loss of the wetland ecosystem that has occurred as a result of the current construction. It would do nothing to remedy or minimise these effects. Removal of the current gravel causeway and culverts is needed to restore the wetland to a near natural state. The individual piles of a boardwalk or complete span of the wetland areas by a bridge would be more likely to make the effects of the cycleway on the wetland less than minor so a consent may be able to be granted for the cycleway to be compliant with the pWALP and the NPS which is planned to be operative in 2020.

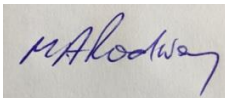
The applicant should also install multiple culverts in the area of the trail where groundwater is intercepted south of the wetland so that this groundwater can flow under the trail and be returned to where it was prior to the construction of the trail.

I am not a trade competitor of the applicant (for the purposes of Section 308B of the Resource Management Act 1991).

I do wish to be heard in support of my submission.

I do wish to be involved in any pre-hearing meeting that may be held for this application.

I have served a copy of my submission on the applicant.

Signed 

Date: 24 January 2020



## **Introduction**

Environment Southland have received a retrospective resource consent application from the Fiordland Trails Trust (FTT) to modify a wetland due to construction of a multi-use trail on the eastern margin of Lake Manapouri and resource consent application for the diversion of surface water, the diversion of groundwater and for wetland modification associated within the installation of a third culvert at Leg 6 of the Lake 2 Lake Te Anau to Manapouri Multi Use Trail

Wildland Consultants Ltd were engaged by Environment Southland to assist with assessment of ecological aspects of the application. This evidence describes the qualifications of staff member Dr Kelvin Lloyd who undertook the assessments, and summarises the conclusions made.

## **Qualifications and experience**

My name is Kelvin Michael Lloyd. I am a Principal Ecologist employed by Wildland Consultants Ltd since 2004, based in Dunedin.

I have a PhD and BSc(hons) from the University of Otago. Subsequent to University I was employed by Landcare Research for three years of post-Doctoral research. I am an author of 21 peer-reviewed scientific research papers and over 250 contract reports. I have presented evidence at Environment Court level on 30 occasions, and in 23 resource consent hearings.

I am very familiar with Southland Region having undertaken numerous ecological assessments across the region, and having mapped potential natural ecosystems across the region. I have considerable experience in wetland assessments, having mapped current and potential wetlands in Southland, identified regionally significant wetlands in Otago, mapped and monitored numerous wetland types in the Tekapo Military Training Area, and provided advice on specific wetlands throughout New Zealand in relation to the effects of development activities on these wetlands.

In 2018 I presented evidence on behalf of Environment Southland on wetland values, state, and trends, at the hearing on the proposed Southland Water and Land Plan. I subsequently undertook field work and reporting to establish the causes of loss of Southland wetland extent.

## **Involvement in the case**

Wildland Consultants was contacted by Environment Southland staff in February 2019 asking for a review of the ecological assessment<sup>1</sup> accompanying the application for retrospective resource consent to clear and modify wetland vegetation and habitat crossed by the Manapouri to Te Anau segment of a multi-purpose trail constructed by the Fiordland Trails Trust. Specifically, technical comment on the effects assessment, fish passage, habitat changes, and any other relevant comment was sought.

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<sup>1</sup> Beale Consultants 2018: Te Anau-Manapouri multi-purpose trail. Ecological assessment of Leg 6 wetland crossing. Prepared for the Fiordland Trails Trust.

I undertook a desktop assessment<sup>2</sup> of the Applicant's ecological report, concluding that the adverse effects of the trail on the wetland were more than minor, due to hydrological effects that were likely to change the composition of the wetland over time. I suggested that remediation, mitigation, or compensation actions could potentially address these effects.

Subsequent to providing this report to Environment Southland, in March 2019 I corresponded by telephone and email with Simon Beale (the ecologist acting for the Applicant). In this exchange I supported infilling of the excavated ditch on the upper side of the trail, and monitoring of the infilled material and its colonisation by indigenous sedges. I advised Environment Southland that this would partly mitigate the adverse ditch excavation effects, but that there would still be a residual adverse effects of wetland clearance.

In April 2019 I wrote an additional report<sup>3</sup>, setting out the basis for the above opinion. In this report I concluded that infilling the drainage ditch would remediate hydrological effects on the wetland, and that mitigation of the adverse effects of wetland clearance could be Scotch broom and control of upstream willow trees, which could potentially reduce the residual effects of wetland clearance to a less than minor extent.

Subsequently, FTT advised that the willow trees were on private land, so it was instead proposed to control woody weeds in an approximate 0.2 hectare area centred on the trail. FTT would also discuss removal of the upstream willow trees with the landholder. In a further report<sup>4</sup> I concluded that the residual adverse effects of wetland vegetation clearance caused by track construction would be addressed by these mitigation options, and that if the actions suggested earlier were also undertaken with sufficient care and diligence, then the overall ecological effects on the wetland should be less than minor. I noted that my conclusions were limited because they were made without the benefit of having visited the site.

Subsequent to this FTT applied for a new consent to divert surface water, divert ground water, and modify the wetland. This consent was applied for on the advice of a hydrological expert that an additional culvert was required beneath the trail.

I visited the site on 4 November 2019 to assess the wetland in the field, and to assess the potential effects of installing the additional culvert. This site visit was helpful in more accurately defining the extent of the wetland vegetation, which occupied the entire gully floor above the trail, but was confined to the margins of the two streams below the trail. I also noted that during trail construction, excavated substrate had been dumped in the wetland above the cycle trail.

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<sup>2</sup> Wildland Consultants 2019: Review of effects of Fiordland Trail on wetland values. Wildland Consultants Contract Report No. 4957. Prepared for Environment Southland.

<sup>3</sup> Wildland Consultants 2019b: Review of effects of Fiordland Trail on wetland values. Wildland Consultants Contract Report No. 4957. Prepared for Environment Southland. Dated 8 April 2019.

<sup>4</sup> Wildland Consultants 2019: Review of effects of Fiordland Trail on wetland values. Wildland Consultants Contract Report No. 4957c. Prepared for Environment Southland. Dated 11 April 2019.

In addition to the remediation and mitigation actions suggested in our earlier reports, I wrote an additional report<sup>5</sup> in which I considered that removal of the spoil mound in the wetland upstream of the trail should be undertaken, and the original ground surface restored.

We did not support the proposed installation of a third culvert between the two existing culverts under the trail, as this would only exacerbate the adverse hydrological effects of trail construction on the wetland above the trail.

We further suggested that weed control for the benefit of wetland vegetation should focus on the entire area of wetland vegetation above the trail, and should focus on control of Scotch broom (*Cytisus scoparius*), blackberry (*Rubus fruticosus* agg.), and any invading woody weeds. We also suggested removing a rowan (*Sorbus aucuparia*) tree located some 15 metres below the cycle trail, and any associated rowan regeneration.

The reports that contain these findings are appended to the S42A report.

## Conclusions

The adverse hydrological effects of spoil dumping and ditch excavation on the upstream wetland could be remedied by removing the spoil dump, infilling the ditch, and reinstating the former wetland ground surface. Installation of a third culvert is not supported as it would generate additional adverse effects and provide no obvious benefits. Weed control over the entire wetland area above the trail and additional control of rowan below the trail would mitigate the residual adverse effects of wetland clearance. Overall, if all of these positive activities were undertaken to an appropriate standard, in my opinion the residual adverse effects on the wetland would be less than minor.



NAME Kelvin Lloyd  
POSITION Principal Ecologist

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<sup>5</sup> Wildland Consultants 2019: Review of effects of Fiordland Trail on wetland values. Wildland Consultants Contract Report No. 4957d. Prepared for Environment Southland. Dated 6 November 2019.



PAID  
07 OCT 2019  
ENVIRONMENT  
SOUTHLAND *ues*  
Credit \$1500

**Fiordland Trails Trust**

**Leg 6 of the Lake 2 Lake Trail**

**Resource Consent Application**

**Diversion of Surface Water, Diversion of Ground Water and  
Wetland Modification**



### Contact Details

*Name: Luke McSoriley*

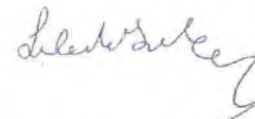
Opus House, 65 Arena Avenue  
PO Box 647, Invercargill 9840  
New Zealand

Telephone: +64 3 211 3580  
Mobile: +64 27 269 1644

### *Document Details:*

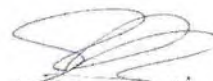
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*Prepared By*



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Luke McSoriley  
Senior Planner

*Reviewed By*



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Shane Roberts  
Senior Planner

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**APPLICATION FOR RESOURCE CONSENT  
PURSUANT TO SECTION 88 OF THE RESOURCE MANAGEMENT ACT 1991**

To: Environment Southland  
Private Bag 90116  
INVERCARGILL 9840

From: Fiordland Trails Trust

Completed Southland Regional Council Forms A & B are attached as Appendix F.

**Fiordland Trails Trust** applies for the following resource consents:

1. The type of Resource Consent sought is:

RMA Section	Resource Consent Sought	Period Sought
Section 14	The diversion of surface water and groundwater	25 years
Section 9	Wetland modification	N/A

2. The application should be read alongside the application for wetland modification (application APP-2019-1150) and seeks resource consent for wetland modification (land use activity) associated with installation of the proposed third culvert and a discharge consent for the diversion of water through the proposed third culvert to the downstream side of the Trail. The application seeks resource consent for the diversion of both groundwater and surface water. The reason for this being that the installation of the culvert will divert groundwater or surface water or potentially a combination of both.
3. The property details for the application site are listed below:
- Leg 6 of the Lake 2 Lake Cycle Trail between chainage 2200 and 2300.
  - GPS Coordinates 1180612 E, N4942051 and 1180593 E, 4942084.
4. The location of the activity is detailed in the attached report and appendices.
5. The properties the application relates to are owned by: The Crown.
6. Other resource consents: An application (APP-2019-1150) for wetland modification has been made and is currently being processed by the Southland Regional Council.
7. Attached in accordance with the Fourth Schedule of the Resource Management Act 1991 is a description of the proposed activity and an assessment of the environmental effects the proposed activity may have on the environment.
8. Included is an assessment of the proposed activity against the matters set out in Part 2 of the Resource Management Act 1991.
9. I attach an assessment of the proposed activity against any relevant provisions of a document referred to in Section 104(1)(b) of the Resource Management Act 1991, including the information required by Clause 2(2) of Schedule 4 of that Act.

10. Nothing in this application is affected by section 165ZH(1)(c) of the Resource Management Act 1991 (which relates to marine and coastal occupation).
11. The proposed activity is NOT within an area covered by a customary marine title group planning document under Section 85 of the Marine and Coastal Area (Takutai Moana) Act 2011.
12. The application is NOT for any form of subdivision under the Act.
13. Information, as required by the relevant Regional Plan is contained in the attached document.
14. Attached is all other information required to be included in the application by the relevant Regional Plans, the Resource Management Act 1991 or any regulations made under that Act.
15. All information provided in this application is true and correct to the best of the applicant's and report writer's knowledge and understanding.
16. The relevant application fee was paid on lodgement of the application. The applicant will pay all actual and reasonable application processing costs incurred by the Council.
17. We request that all correspondence about this application be directed towards our Agent.

**Fiordland Trails Trust**

Address for Service:  
Opus International Consultants Ltd  
PO Box 647  
INVERCARGILL

ATTENTION: Luke McSoriley  
P 0272691644  
E [luke.mcsoriley@wsp.com](mailto:luke.mcsoriley@wsp.com)



## 1 Introduction

This application has been prepared in accordance with Section 88 of the Resource Management Act 1991 (RMA) and provides a description of the proposal with an assessment of the actual and potential effects on the environment, as required by the Fourth Schedule of the RMA.

## 2 Background

### 2.1 Fiordland Trails Trust

The Fiordland Trails Trust (FTT) is a charitable trust constructing a multiuse trail from Te Anau to Manapouri known as the Lake 2 Lake Trail (the Trail). The Trail runs along the true left (East) side of the upper Waiau River and is formed of 6 legs; five of which (Legs 1 – 4 and Leg 6) have been constructed.

### 2.2 Wetland Modification Application

In September 2018 Environment Southland issued an abatement notice relating to encroachment of part of Leg 6 of the Trail across a wetland for a length of approximately 35m. Wetland modification requires resource consent under the Proposed Southland Water and Land Plan (pSWLP). In response to the abatement notice the FTT retrospectively lodged an application seeking resource consent for wetland modification.

The construction of a part of Leg 6 of the Trail, approximately 35 metres in length, has resulted in encroachment on a wetland associated with a spring fed stream that drains into Lake Manapouri. The resource consent application seeks retrospective resource consent for wetland modification associated with construction of this section of the Trail (the use of land within a wetland).

An application (APP-2019-1150) for wetland modification (the use of land within a wetland) associated with a 35m section of the Trail is currently being processed by the Southland Regional Council (SRC). A decision to process the application on a publicly notified basis was made by Environment Southland under section 95 of the Act on the 18 April 2019. At the close of the public notification process a total of 73 submissions has been received, 71 submissions in support and 2 neutral. No submissions opposing the application were received. A hearing was scheduled to take place on the 18<sup>th</sup> September

While preparing ecology evidence for the hearing it was determined that evidence from an expert hydrologist should be obtained to ensure all relevant effects were adequately addressed. This resulted in FTT engaging David Hamilton a Senior Water Resources Engineer to review the hydrological aspects of the application. Mr Hamilton's assessment is included as Appendix 2.

Mr Hamilton recommended, in addition to the two culverts proposed as part of the application, a third culvert be installed to mitigate any effects on the interflow of groundwater through the upper top soil layer between the upstream and downstream sides of the Trail. It is proposed to locate the third culvert near the middle of the wetland crossing as detailed in Appendix 1.

A water permit is required for the diversion of water through the proposed third culvert to the downstream side of the Trail. Water permits were not required for the two culverts proposed as part of the first application because they are located within an existing overland flow path and transport water that would otherwise flow along an existing channel were it not for the construction of the trail. Land use consent is also sought for modification of the wetland for the purposes on installing the third culvert.



## 2.3 Site Description

The land subject to this application is the part of Leg 6 of the Trail that crosses a wetland over a length of approximately 35 metres. The Trail in the locality crosses two streams that are spanned with polyethylene culverts (the northern and southern culverts). The streams define the wetland extent. The Trail has been formed to a width of 3.0 metres incorporating a 2.2-metre-wide gravelled surface and steep gravelled shoulders. A water table has been formed on part of the upstream side of the Trail to direct sub-surface flows from the wetland to the southern culvert. A detailed description of the wetland is provided in the ecological assessment (Appendix A). The part of the Trail that this application relates to is located between chainage 2200 and 2300 of Leg 6 - Manapouri to Supply Bay Road.

## 3 Proposed Activity

This application seeks resource consent for wetland modification (land use activity) associated with installation of a culvert and a discharge consent for the diversion of water through the proposed third culvert to the downstream side of the Trail. The application seeks resource consent for the diversion of both groundwater and surface water. The reason for this being that the installation of the culvert may be undertaken in a manner that involves diversion of groundwater or surface water or potentially a combination of both. A methodology for the proposed culvert works is detailed below.

## 4 Works Methodology

A 4m long x 400mm diameter polyethylene culvert will be installed at a location approximately 12 metres to the north of the southernmost 800mm diameter culvert as directed by the Engineer.

### 1. Excavation

- The trench shall be 600mm wide +/- 50mm.
- Trail pavement material shall be set aside on the trail for later reinstatement.
- Natural substrate material as excavated shall be set aside on the existing trail for later placement to the water table filling.
- The excavation shall proceed from downstream to upstream.
- All care shall be taken to prevent silt laden water flowing to the wetland.

### 2. Placement

- The pipe shall be embedded in compliance with Rule 59(a) of the pSWLP to a depth of 1/3 of the culvert dia. (135mm) into the natural bed.
- The culvert shall be backfilled with granular material and well compacted.
- Minimum gradient to culvert - 1 in 20
- Water shall not be released to the culvert until all installation is completed and loose material removed.

## 5 Consents Required

### 5.1 Proposed Water and Land Plan 2018

#### 5.1.1 Wetland Modification

The modification of wetland to enable installation of the proposed culvert is a non-complying activity under Rule 74 (c) of the proposed Southland Water and Land Plan 2018 (pSWLP). The use of land within a natural wetland that is not for one or more of the purposes listed in Rule 74(a) or 74(ab) and as such is a non-complying activity.



### 5.1.2 Diversion of Water pSWLP

There is no permitted activity rule under the pSWLP that allows the diversion of groundwater or surface water in a wetland. As there is no rule expressly allowing the diversion of water in the regional plan a resource consent is required under Section 14 (3) (a) of the RMA 1991 for the proposed diversion of groundwater and / or surface water. A discharge consent is therefore required for the diversion of water through the proposed third culvert to the downstream side of the Trail. Under Rule 4 of the proposed Southland Water and Land Plan 2018 (pSWLP) any activity that would otherwise contravene Section 14(3) of the RMA and is not classified by the pSWLP as any other class of activity listed in Section 87A of the RMA is a discretionary activity.

## 5.2 Operative Regional Water Plan 2010

Under Rule 20 (c) of the Southland Regional Water Plan 2010 (RWP) the diversion of water from any naturally occurring wetland is a discretionary activity.

## 5.3 Summary

Resource consent is required for diversion of water under both the operative and proposed regional water plans as a discretionary activity. Resource consent is required for wetland modification as a non-complying activity under the pSWLP.

# 6 Assessment of Environmental Effects

## 6.1 Hydrology

Mr Hamilton's review (Appendix 2) has considered hydrology effects associated with the 35m of Trail that the wetland modification application (APP-2019-1150) relates to and concludes as follows:

*"It is concluded that the construction of the trail between the northern and southern culverts has reduced the interflow from upstream to downstream of the trail through the higher ground between the two 800mm culverts. A small area adjacent to the water table that feeds to the southern culvert would also have been affected.*

*It is recommended that remediation be undertaken:*

- (a) *through filling in of the water table as previously proposed by Opus in letter 27 March 2019, and*
- (b) *placing a 300-400mm diameter culvert through the high ground approximately halfway between the two larger culverts. The actual location should be confirmed on site".*

This application seeks resource consent to undertake recommendation (b) and install a third culvert to enable the flow of water in the wetland either side of the Trail. In the context of the application site having been altered by the construction of 35 metres of Trail the proposed activity will mitigate adverse effects associated with the construction of the trail on the hydrology of the wetland.

## 6.2 Ecology

An Ecological Assessment of the effects of construction of the Trail on wetland ecology was undertaken by Simon Beale of Beale Consultants Ltd and was supplied as part of application APP-2019-1150. The Assessment is included in this application as Appendix 3. The Assessment in relation to ecological effects stated: *"The effect of trail construction on the hydrological and ecological function of the wetland is assessed as less than minor"*.



The Ecological Assessment was then reviewed by Dr Kelvin Lloyd of Wildlands Consultants Ltd. Dr Lloyd provided three different assessments as detailed in Appendix 3. The Assessments reflect discussions that occurred between Mr Beale and Dr Lloyd, further information provided by FTT and amendments to the application promoted by FTT. Dr Lloyd in his third and final assessment of 11 April 2019 concludes that the ecological effects on the wetland should be no more than minor:

*"In our opinion, the residual adverse effects of wetland vegetation clearance caused by track construction can be addressed by the positive effects of weed control over the 2,000-metre squared area centred on the wetland and its riparian margins. Overall, the ecological effects on the wetland should be no more than minor if these actions, and the actions suggested earlier, are undertaken with sufficient care and diligence".*

As noted above this application seeks resource consent to install a third culvert to enable the flow of water in the wetland either side of the Trail. The proposed activity will ensure that the hydrological and ecological function of the wetland on the downstream side of the trail will be maintained. Positive ecological effects will arise as a result of pest plant control measures promoted by FTT as part of the associated wetland modification resource consent application and activity.

The installation of the culvert will require works within the wetland. No vegetation will need to be removed as part of the works. These works will be of a minor nature, will not give rise to adverse environmental effects that are more than minor and will have positive ecological effects.

### 6.3 Water Quality

There may be limited minor temporary release of sediment into groundwater and surface water when works are completed, and water is diverted through the new culvert. Any effects of water quality associated with this will be no more than minor and no on-going effects on water quality will arise from the proposed activity.

### 6.4 Infrastructure

The RMA definition of infrastructure includes 'structures for transport on land such as cycleways and walkways' and the Trail is consistent with this definition. The Trail is also consistent with the pSWLP definition of regionally significant infrastructure. The proposed activity is associated with regionally significant infrastructure, will enable legalisation of the 35m section of Trail that crosses the wetland and will have positive effects on infrastructure.

### 6.5 Public Access & Recreation

The 35m section of Trail that this application relates to is providing beneficial recreational opportunities and improved visitor experiences of the Te Anau – Manapouri area by improving public access into and through public land and conservation land. Locals are also regular users of the Trail and enjoy the recreational opportunities it provides. The Trail is available for use by both cyclists and pedestrians including residents and visitors and is having positive effects in relation to public access. The proposed activity will support and enable use of part of the Trail and will have positive public access and associated recreation effects.

### 6.6 Transportation Effects

The Trail provides an important cycleway and walkway connection between Te Anau and Manapouri. The Trail provides an alternative transport route between the two townships to State highway 95 (SH95). There is no formed footpath or cycleway on SH95. The proposed activity is associated with regionally significant infrastructure, will enable use of the 35m section of Trail that crosses the wetland and will have positive transportation effects.



## 6.7 Social and Economic

The activity is having social and economic benefits. Provision of enhanced public access to public land and improved recreational opportunities are positive social effects. In terms of social benefits, economic benefits are arising from people visiting the area to ride or walk the Trail and related economic activity.

## 6.8 Summary of Effects

The adverse effects of the activity will be no more than minor and there are positive environmental, social and economic effects.

# 7 Statutory Considerations

## 7.1 Resource Management Act 1991

All resource consent applications must be considered against Part 2 of the Resource Management Act 1991 (RMA). Council must be satisfied that in granting a resource consent, Part 2 of the RMA will be achieved.

### Section 5

Section 5 sets out the purpose of the RMA to promote the sustainable management of natural and physical resources. Section 5 requires activities to be managed so to avoid, remedy or mitigate adverse effects on the environment. The proposed culvert and associated works is consistent with sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations (Section 5 (2) (a)), will give rise to no more than minor adverse effects on the environment (Section 5 (2) (b)), and will safeguard the life-supporting capacity of air, water, soil, and ecosystems (Section 5 (2) (c)). The activity is consistent with the sustainable management of natural and physical resources.

### Section 6

Section 6 of the RMA lists the matters of national importance which are to be recognised and provided for. The Section 6 matters of relevance to this application are: The preservation of the natural character of wetlands lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development (Section 6 (a)); The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna (Section 6 (c)); and The maintenance and enhancement of public access to and along lakes, and rivers (Section 6 (d)), and the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga (Section 6 (e)). The assessment of effects above discusses the effects of the activity in relation to these matters and concludes that they are no more than minor. The activity is consistent with the relevant Section 6 matters.

### Section 7

Section 7 lists other matters to regard in relation to managing the use, development, and protection of natural and physical resources. Of relevance to this application is the intrinsic values of ecosystems (s7(d)). Other relevant Section 7 matters include the efficient use and development of natural and physical resources (s7(b)), maintenance and enhancement of amenity values (s7(c)) and maintenance and enhancement of the quality of the environment (s7(f)).

The proposed activity is consistent with the efficient use and development of natural and physical resources, the maintenance and enhancement of amenity values and maintenance and enhancement of the quality of the environment. The proposed activity is enabling public access and recreational opportunities on public land. Construction of part of Leg 6 of the Trail across a



wetland is not giving rise to any significant effects on amenity values and is contributing to the quality of the environment. Regarding s7(d), as discussed above any adverse environmental effects will be no more than minor and there are several positive social, recreational and public access benefits associated with the Trail and the proposed culvert and associated works will have positive ecological effects.

### Section 8

The principles of the Treaty of Waitangi (Te Tiriti o Waitangi) must be accounted for in accordance with Section 8. The relevant issues and policies of Te Tangi a Tauira are assessed and discussed below. Consultation with TAMI has also been undertaken and their written approval obtained. There is nothing to indicate the application site is a culturally significant site. The activity is not inconsistent with the principles of the Treaty of Waitangi.

## 7.2 National Policy Statement for Freshwater Management (NPSFM) 2014

The NPSFM supports improved freshwater management in New Zealand. It does this by directing regional councils to establish objectives and set limits for fresh water in their regional plans. The proposed activity is not inconsistent with the relevant objectives and policies of the NPSFM.

## 7.3 Regional Policy Statement 2017

The Regional Policy Statement for the Southland Region (SRPS) provides an overview of the resource management issues of the region. It sets out how natural and physical resources are to be managed in an integrated way to promote sustainable management.

### *Objective INF.1 – Southland's infrastructure*

*Southland's regionally significant, nationally significant and critical infrastructure is secure, operates efficiently, and is appropriately integrated with land use activities and the environment.*

The Trail is consistent with the SRPS definition of regionally significant infrastructure. Objective INF.1 seeks to enable the efficient operation of Southland's regionally significant infrastructure. The proposed activity is consistent with efficient operation of the wider Trail.

### *Policy INF.1 - Regional, national and critical infrastructure*

*Recognise the benefits to be derived from, and make provision for, the development, maintenance, upgrade and ongoing operation of regionally significant, nationally significant and critical infrastructure and associated activities.*

This policy seeks to recognise the benefits to be derived from the development of infrastructure and provides for the development and ongoing operation of regionally significant infrastructure. It also seeks to provide for the development and ongoing operation of regionally significant infrastructure such as the Trail. The proposed activity is consistent with this policy.

### *Policy INF.2 – Infrastructure and the environment*

*Where practicable, avoid, remedy or mitigate the adverse effects of infrastructure on the environment. In determining the practicability of avoiding, remedying, or mitigating adverse effects on the environment, the following matters should be taken into account:*

- (a) *any functional, operational or technical constraints that require the physical infrastructure of regional or national significance to be located or designed in the manner proposed;*
- (b) *whether there are any reasonably practical alternative designs or locations;*



- (c) *whether good practice approaches in design and construction are being adopted;*
- (d) *where appropriate, and such measures are volunteered by a resource user, whether any significant residual adverse effects can be offset or compensated for; and*
- (e) *the need to give effect to the NPSET (2008) including that planning and development of the transmission system should seek to avoid adverse effects on outstanding natural landscapes, areas of high natural character and areas of high recreation value and amenity and existing sensitive activities.*

This policy requires Inclusion of objectives, policies and methods in regional plans that will enable the development, use, maintenance and upgrading of infrastructure, whilst ensuring the management of any associated adverse effects. The pSWLP does include provisions that do this, and these are discussed further below. There is a functional and operational need for the physical infrastructure of the Trail to cross the wetland in this area and the proposed activity is consistent with this policy.

#### *Objective TRAN.1 – Transport and land use*

*Development of transport infrastructure and land use take place in an integrated and planned manner which: (a) integrates transport planning with land use; (b) protects the function, safety, efficiency and effectiveness of the transport system; (c) minimises potential for reverse sensitivity issues to arise from changing land uses; (d) provides for positive social, recreational, cultural and economic outcomes; (e) minimises the potential for adverse public health and environmental effects; (f) enhances accessibility and connectivity, maximising transport choice for users of the transport system.*

The Trail is transport infrastructure and the proposed activity is consistent with protection of the function, safety, efficiency and effectiveness of the transport system (b). Provision of positive social, recreational and economic outcomes (d) and maximising of transport choice (f).

#### *Policy TW.3 Take iwi management plans into account.*

The iwi management plan for Southland - Te Tangi a Taurira is considered and discussed below.

#### *Objective WQUAL.1 Water quality in the region:*

- (a) *safeguards the life-supporting capacity of water and related ecosystems;*
- (b) *safeguards the health of people and communities;*
- (c) *is maintained, or improved in accordance with freshwater objectives formulated under the National Policy Statement for Freshwater Management 2014;*
- (d) *is managed to meet the reasonably foreseeable social, economic and cultural needs of future generations.*

#### *Policy WQUAL.1 Overall management of water quality*

- (a) *Identify values of surface water, groundwater, and water in coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands, and formulate freshwater objectives in accordance with the National Policy Statement for Freshwater Management 2014; and*



- (b) *Manage discharges and land use activities to maintain or improve water quality to ensure freshwater objectives in freshwater management units are met.*

*Policy WQUAL.3 Identify and protect the significant values of wetlands and outstanding freshwater bodies.*

*Policy WQUAL.7 Recognise the social, economic and cultural benefits that may be derived from the use, development or protection of water resources.*

Regarding Objective WQUAL.1, Policy WQUAL.1 and Policy WQUAL.3, as noted above the proposed activity is not likely to give rise to any significant adverse environmental effects in relation to water quality and is consistent with these provisions. In relation to Policy WQUAL.7 the Trail brings social and economic benefits to the Te Anau and Manapouri communities and is consistent with Policy WQUAL.7.

*Objective BIO.2*

*Maintain indigenous biodiversity in Southland and protect areas of significant indigenous vegetation and significant habitats of indigenous fauna for present and future generations.*

*Policy BIO.2*

*Areas of significant indigenous vegetation and significant habitats of indigenous fauna in the Southland region will be protected and, where appropriate, enhanced. In giving effect to this policy, particular regard will be had to the following potential adverse effects:*

- (i) fragmentation of, or reduction in the extent of, significant indigenous vegetation or significant habitats of indigenous fauna;*
- (ii) fragmentation or disruption of connections and linkages between significant ecosystems or significant habitats of indigenous fauna;*
- (iii) loss of, or damage to, buffering of significant ecosystems or significant habitats of indigenous fauna;*
- (iv) loss or reduction of rare or threatened indigenous species populations or habitats.*

*Policy BIO.4*

*Manage a full range of indigenous habitats and ecosystems to achieve a healthy functioning state, and to ensure viable and diverse populations of native species are maintained, while making appropriate provisions for lawful maintenance and operation of existing activities. In giving effect to this policy, regard will be had to the following potential adverse effects:*

- (i) fragmentation of, or reduction in the extent of, indigenous vegetation or habitats of indigenous fauna;*
- (ii) fragmentation or disruption of connections and linkages between ecosystems or habitats of indigenous fauna;*
- (iii) loss of, or damage to, buffering of ecosystems or habitats of indigenous fauna;*
- (iv) loss or reduction of rare or threatened indigenous species' populations or habitats.*



*The activity is not contrary to the relevant objectives and policies of the SRPS. The SRPS recognizes the importance of regionally significant infrastructure, seeks to enable its efficient operation and requires provision for its development and ongoing operation.*

Regarding Objective BIO.2 the proposed activity will ensure the protection of the wetland and will maintain indigenous biodiversity values. The proposed activity is a mitigation measure promoted by the applicant and will protect areas of significant indigenous vegetation and significant habitats of indigenous fauna for present and future generations. The activity is consistent with Objective 2. Regarding Policy BIO.2 and Policy BIO.4 the proposed activity is a mitigation measure promoted that will assist in terms of protecting an area of significant indigenous vegetation and significant habitats of indigenous fauna. The proposed activity will not result in fragmentation, reduction in the extent of, connections and linkages, loss of or damage to indigenous habitats and ecosystems and is not contrary to these policies.

The proposed activity is not contrary to the relevant objectives and policies of the SRPS. The SRPS recognizes the importance of regionally significant infrastructure, seeks to enable its efficient operation and requires provision for its development and ongoing operation.

#### 7.4 Operative Regional Water Plan 2010

The objectives and policies of the Regional Water Plan (RWP) that are relevant to this application are listed and discussed below.

##### *Objective 10 – Habitats and ecosystems*

*To maintain or enhance the diversity and integrity of aquatic and riverine habitats and ecosystems.*

Objective 10 requires habitats and ecosystems to be maintained, and where possible enhanced. The ecological effects have been discussed above, the activity will maintain wetland habitat integrity and ecosystem function and is consistent with this objective.

*Objective 12 To maintain and enhance public access to river beds (including beds of streams and modified watercourses) and lake beds except in circumstances where public health and safety are at risk.*

The proposed activity relates to a 35m section of the Lake 2 Lake Trail which provides a connection between the Waiau River and Lakes Te Anau and Manapouri. The proposal is consistent with the intent of the objective because it is part of a proposal that maintains and enhances public access to river and lake beds.

##### *Policy 1A Take into account Iwi Management Plans*

In relation to Policy 1A the relevant Iwi Management Plan has been taken into account and is discussed further below.

##### *Policy 3 – No reduction in water quality*

Policy 3 seeks no reduction in water quality and as identified above the effects of the proposed activity on water quality will be no more than minor.

*Policy 40 Encourage the maintenance and restoration of existing wetlands and the creation of new wetlands.*

The proposed activity is consistent with the maintenance of existing wetlands. The proposed culvert will maintain the hydrology and function of the wetland.

The proposed activity is not contrary to the relevant objectives and policies of the RWP.



## 7.5 Proposed Southland Water and Land Plan (pSWLP)

The objectives and policies of the pSWLP that are relevant to this application are listed and discussed below.

*Objective 1 - Land and water and associated ecosystems are sustainably managed as integrated natural resources, recognising the connectivity between surface water and groundwater, and between freshwater, land and the coast.*

Objective 1 is a broad high-level objective that sets the goal of sustainable management of land and water and associated ecosystems, the manner of management and the need to recognise the connectivity of water. As noted above the effects of the activity on the wetland are no more than minor. The proposed activity is not contrary to this objective. It recognises the connectivity between surface and ground water by providing for surface and sub-surface flows of water that would otherwise be impeded by the section of the Trail. In doing so it provides for the sustainable management of the wetland.

*Objective 2 - Water and land is recognised as an enabler of primary production and the economic, social and cultural wellbeing of the region.*

Objective 2 acknowledges water and land as an enabler for key RMA matters in the region. The activity is having positive social and economic effects and is contributing positively to the wellbeing of the Southland Region. The proposed activity is consistent with Objective 2.

*Objective 9A - Surface water is sustainably managed to support the reasonable needs of people and communities to provide for their social, economic and cultural wellbeing.*

The part of the Trail that this application relates to is supporting the local community in provision of social and economic wellbeing. The proposed activity is consistent with sustainable management of surface water to support the reasonable needs of people and communities to provide for their social and economic wellbeing. It will have no adverse effects on the sustainability of surface water and will have no adverse effects on any freshwater values.

*Objective 9B - The effective development, operation, maintenance and upgrading of Southland's regionally significant, nationally significant and critical infrastructure is enabled.*

Objective 9B seeks to enable the effective development of Southland's regionally significant infrastructure. The Trail is defined as regionally significant infrastructure. The proposed activity is consistent with enabling effective development of that regionally significant infrastructure.

*Objective 13 - Enable the use and development of land and soils to support the economic, social, and cultural wellbeing of the region.*

The proposed activity is consistent with enabling the use of land to support the economic and social wellbeing within the Southland Region.

*Objective 14 1 The range and diversity of indigenous ecosystem types and habitats within rivers, estuaries, wetlands and lakes, including their margins, and their life-supporting capacity are maintained or enhanced.*

Objective 14 seeks to maintain or enhance the range and diversity of indigenous ecosystem types and habitats within wetlands and their life-supporting capacity. The proposed activity will provide for the maintenance of the wetland ecosystem and its life supporting capacity by mitigating any effects of the Trail impeding or deflecting the flow of water downstream in the wetland. The diversion itself will have no adverse effects. It is consistent with Objective 14.



*Objective 16 - Public access to, and along, river (excluding ephemeral rivers) and lake beds is maintained and enhanced, except in circumstances where public health and safety or significant indigenous biodiversity values are at risk.*

The proposed activity is associated with a Trail that is enabling public access to an along Lake Manapouri and Lake Te Anau, the Waiau River and is consistent with Objective 16.

*Objective 17 - The natural character values of wetlands, rivers and lakes and their margins, including channel and bed form, rapids, seasonably variable flows and natural habitats, are protected from inappropriate use and development.*

The proposed culvert is a mitigation measures promoted by the applicant that will mitigate the effects of trail construction, is not inappropriate development and is consistent with the intent of Objective 17.

*Objective 18 - All activities operate in accordance with "good management practice" or better to optimise efficient resource use, safeguard the life supporting capacity of the region's land and soils, and maintain or improve the quality and quantity of the region's water resources.*

The activity and in particular the mitigation promoted by the applicant is considered consistent with good management practice. It is a non-extractive use and will have no effects on water quality and will maintain the water table on the downstream side of the Trail. It will maintain water quality.

*Policy 13 (1) Recognise that the use and development of Southland's land and water resources, including for primary production, enables people and communities to provide for their social, economic and cultural wellbeing.*

The proposed activity is associated with the multi-use Trail which is having positive social and economic effects and is contributing positively to the wellbeing of the Southland Region. The proposed activity is consistent with Policy 13(1).

*Policy 26A - Recognise and provide for the effective development, operation, maintenance and upgrading of regionally significant, nationally significant and critical infrastructure in a way that avoids where practicable, or otherwise remedies or mitigates, adverse effects on the environment.*

This policy implements Objective 9B, discussed above. The effective development of this piece of regionally significant infrastructure needs to be recognised and provided for. The proposed activity will have no more than minor adverse environmental effects and will have positive effects.

*Policy 32 (3) Protect significant indigenous vegetation and significant habitats of indigenous fauna associated with natural wetlands, lakes and rivers and their margins.*

The proposed activity will protect significant indigenous vegetation and significant habitats of indigenous fauna associated within the wetland and is consistent with this policy by mitigating any adverse effects of the Trail.

*Policy 33 Prevent the reduction in area, function and quality of natural wetlands, including through drainage, discharges and vegetation removal.*

The proposed activity will maintain the function and quality of the wetland and will not directly result in loss of area of wetland. It is consistent with this policy.

The proposed activity is not contrary to the relevant objectives and policies of the pSWLP.



## 8 Te Tangi a Taurira

The proposed activity is generally consistent with the relevant policies of the iwi management plan 'Te Tangi'. The wetlands policy of Te Tangi 9.6.4 Wetlands (3.5.18) 1 states:

*Avoid the direct or indirect drainage or modification of any existing wetland area.*

The proposed activity is a mitigation measure that will address potential modification of the wetland hydrology due to trail construction and is considered consistent with this policy.

## 9 Consultation

FTT have consulted the Department of Conservation, Te Ao Marama Inc and Fish & Game Southland in relation to this application and sought the written approval of these agencies. The written approvals will be provided to SRC if or when obtained.

## 10 Section 104D

Wetland modification is a non-complying activity under Rule 74 of the pSWLP. When considering a non-complying activity, the Council may only, in accordance with section 104D, grant a resource consent for the activity if it is satisfied that the adverse effects of the activity are minor, or the application is for an activity that will not be contrary to the objectives and policies of the relevant plan or proposed plan. If the application passes one of either of the limbs of the "gateway" tests in section 104D, under section 104B the Council may grant or refuse consent and if it grants the application, may impose conditions under section 108 of the RMA. There is no primacy given to either of the two limbs, so if one limb can be passed then the 'test' is passed. As one of the limbs of the 'gateway test' has been passed, then the application is eligible for approval under s104.

As noted above the adverse environmental effects of the proposed activity will be no more than minor. The effects gateway test is therefore met.

The proposed activity has been assessed against the relevant objectives and policies above and the activity is not contrary to the relevant objectives and policies. The policy gateway test is therefore also met.

## 11 Conclusion

The adverse environmental effects of the proposed activity will be no more than minor, and the proposal will ensure wetland function is maintained and its biodiversity values protected. On balance the activity is consistent with relevant RMA plan and policy documents and the purpose of the Resource Management Act 1991, in that it will provide for the sustainable management of the natural and physical resources

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## Appendix A – Third Culvert Location and Details











Fiordland Trails Trust Leg 6 Lake 2 Lake Section  
 Proposed Mitigation/ Remediation Works  
 Base image is drone image supplied by David Boniface  
 David Hamilton, Geosolve Ltd 2 September 2019

**Figure 1: Drone image of section of trail showing proposed remediation work**



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## Appendix B – Hydrology Review





Fiordland Trails Trust

Attention: David Boniface [dajeck@xtra.co.nz]

## Hydrology Review Fiordland Trails Trust Lake 2 Lake Leg 6

Resource Consent Application Reference: APP-20191150

Dear David,

In accordance with our Agreement dated 22 August 2019 we have undertaken a desktop review of existing information relating to the application for a retrospective consent for wetland modification on a section of Leg 6 of the Lake 2 Lake Trail near Manapouri. This report reviews the hydrological aspects of the trail and recommends remediation work.

### *Material Reviewed*

The Opus resource consent application and the Environmental Report by Beale Consultants November 2018 have been reviewed. The effects of the trail on the upper part of the wetland have been identified in Wildland Consultants report dated 26 February 2019 Effects Assessment that states:

- **The trail cuts across the flow of water in the upper part of the wetland, and diverts previously inflowing water into an adjacent stream. This is likely to cause local drying of the wetland adjacent to the water table, and reduce water flow to the larger downstream part of the wetland. These effects are likely to cause local changes in wetland vegetation over time, allowing facultative wetland species such as mānuka to increase in abundance at the expense of obligate wetland species such as purei.**

In addition the Environment Southland request for further information dated 7 March 2019 and the Opus reply dated 27 March 2019 has been reviewed.

### *Aerial Imagery and Photos*

The site has not been visited. Aerial photos with 0.75m and 0.4m definition for the area taken in 2008 and 2017 respectively have been used for site familiarisation. GoogleEarth images from 2007, 2013, 2014 and 2019 have also been viewed. Drone images supplied by David Boniface and ground photos from Simon Beale and David Boniface have been viewed.

### *Culvert installation*

Two 800mm diameter plastic pipe culverts have been installed and details of depth of invert provided (David Boniface L2L Trail Leg 6, Culvert Analysis, Supply Bay Road to Twidle Property, August 2018). The channels upstream and downstream of the culverts do not appear to have been altered so groundwater levels should be similar to before construction.

### *Track Construction and Watertable*

The track construction included stripping of vegetation and most topsoil. The placement of fill for the trail would have reduced natural flows at that level. Flows in the gravels underneath the stripped zone would still pass through the site.

Photos of the watertable that drains towards the southern culvert on the upstream side of the track indicate that this is up to 400mm deep, although generally more like 300mm. This watertable picks up a small channel that would have continued on to ground between the two culverts downstream of the track.

*Area potentially affected by reduced groundwater levels*

The areas potentially affected by the track construction on upstream and downstream sides of the track are shown on the attached Figure 1.

*Proposed Solution*

The proposed remediation by way of filling in the upstream watertable is supported as a part solution. A small diameter pipe, nominal size 300mm to 400mm diameter, to pass the higher elevation water between the 800mm culverts would return water to the area of higher ground below the track, and ensure this area does not dry out. This should be placed approximately halfway between the two larger culverts., with the actual location to be confirmed on site. It is considered that a culvert with the ability to pass 20 l/s should be sufficient. This could be provided by a 200mm diameter culvert. Smaller culverts can have a tendency to get root bound and cleaning out is easier with a culvert in the 300 to 400mm diameter size and should be used. See Figure 1 attached for details.

*Discussion and Conclusion*

It is concluded that the construction of the trail between the northern and southern culverts has reduced the interflow from upstream to downstream of the trail through the higher ground between the two 800mm culverts. A small area adjacent to the watertable that feeds to the southern culvert would also have been affected.

It is recommended that remediation be undertaken:

- (a) through filling in of the watertable as previously proposed by Opus in letter 27 March 2019, and
- (b) placing a 300-400mm diameter culvert through the high ground approximately halfway between the two larger culverts. The actual location should be confirmed on site.

Yours faithfully,



David Hamilton  
Senior Water Resources Engineer





Fiordland Trails Trust Leg 6 Lake 2 Lake Section  
Proposed Mitigation/ Remediation Works  
Base image is drone image supplied by David Boniface  
David Hamilton, Geosolve Ltd 2 September 2019

**Figure 1: Drone image of section of trail showing proposed remediation work**

---

## Appendix C – Ecological Assessments





**BEALE  
CONSULTANTS**

# **Te Anau – Manapouri Multi- Purpose Trail Ecological Assessment of Leg 6 Wetland Crossing**

Prepared for Fiordland Trails Trust  
November 2018



**Contact Details**

Name: Simon Beale  
Beale Consultants Limited  
PO Box 113, Queenstown 9348  
New Zealand

Telephone: +64 3 442 7179  
Mobile: +64 27 230 7788

**Document Details:**

Date: November 2018  
Reference: FTT  
Report No: 2  
Status: Final

Prepared by:



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Simon Beale | Senior Ecologist

Reviewed by:



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Glenn Davis | Senior Ecologist



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## Appendices

### Appendix 1: Herpetofauna Database Search Results

## 1. Introduction

Fiordland Trails Trust (FTT) has commissioned Beale Consultants Limited to undertake an ecological assessment of a wetland that has been affected by the construction of Leg 6 section of the Te Anau – Manapouri multi-purpose trail.

The construction of the trail has resulted in encroachment on a small wetland associated with the spring fed stream that drains into Lake Manapouri. The wetland occupies a broad gully of a shallow gradient at this location.

The purpose of the ecological assessment is to assess the ecological significance of the affected wetland and effects of trail construction on wetland function.

The location of the wetland is indicated on Figure 1-1.



Figure 1-1: Location Plan

## 2. Description of Trail

The trail crosses the wetland over a distance of approximately 35 metres. The trail crosses two streams that are spanned with 800 mm diameter circular polyethylene culverts (hereinafter referred to as the northern and southern culverts). The streams define the wetland extent.

The trail has been formed to a width of 3.0 metres incorporating a 2.2 metre wide graveled surface and steep graveled shoulders.



A water table has been formed on part of the upstream side of the trail to direct sub-surface flows from the wetland to the southern culvert.

The trail climbs steadily across the face of terrace risers beyond the culverts.

### 3. Survey Methodology

Inspections of the wetland was conducted on 11 October 2018. During the inspection the composition, structure and condition of the affected wetland plant communities, and the occurrence of any species with a threat classification was recorded.

### 4. Ecological Context

This part of the Leg 6 section of the trail is located at approximately 190 metres above sea level within the Upukeora Ecological District.

The Land Environments of New Zealand (LENZ) Level IV<sup>1</sup> classification indicates that the affected wetland is located in Environment Q4.1d. Environment Q4.1d is described as easy rolling hills with a cool climate and low annual water deficits with soils that are well drained and of moderate natural fertility (Leathwick et al, 2002). The indigenous vegetation cover including wetland vegetation remaining in Environment Q4.1d at a national scale is approximately 15.5% of its former extent.

The trail on either side of the wetland passes through regenerating or secondary (seral) indigenous vegetation dominated by manuka scrub and shrubland, exotic broom scrub and in places patches of low broadleaved forest/shrubland and fernland dominated by bracken.

### 5. Description of Wetland

Site observations and reference to the semi-hierarchical wetland classification system of Johnson and Gerbeaux 2004 confirm that the wetland is influenced by a riverine hydrosystem and is classified as a marsh. The classification system describes a marsh as being subject to moderate to high water fluctuations and may occur along the margins of river or stream. Evidence of a high degree of fluctuation and wetness is evident between the streams on the upstream side of the track where areas of mud and fine silts prevail.

The general growth form or structure of the wetland vegetation is sedgeland which the Johnson and Gerbeaux classification defines as comprising a cover of sedges that exceeds any other growth form. The sedgeland in the vicinity of the track consists almost exclusively of purei (*Carex secta*) which colonises the riparian margins of the two streams along with the occasional shrub of mingimingi (*Coprosma propinqua*) and weeping mapou (*Myrsine divaricata*) as shown on Figure 5-1.

An extensive area of sedgeland dominated by purei exists downstream of the culvert as shown in Figure 5-2.

Areas of wet ground with muddy-silty substrates lie between the streams and are predominately colonised by stands of manuka (*Leptospermum scoparium*), shrubs of mingimingi (*Coprosma propinqua*), the sedge rautahi (*Carex coriacea*) and swamp kiokio (*Parablechnum minus*) as shown on Figure 5-3.

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<sup>1</sup> The national landscape classification of land environments (LENZ, Leathwick et al. 2002) groups together land environments with similar environmental characteristics such as climate, landform, geology and soil variables which influence the distribution of indigenous vegetation. LENZ has four different scales of classification, from Level I (20 Groups) to Level IV (500 Groups).





Figure 5-1: Purei bordering the inlet to the northern culvert.



Figure 5-2: Extensive sedgeland of purei downstream of the southern culvert.





Figure 5-3: Rautahi and manuka cover on damp ground bordering water table near the southern culvert.

Intervening areas of dry ground also occur between the streams where broom scrub and thickets of bracken prevail as shown on Figure 5-4.

During the site inspection no flora with a threat classification were observed in the wetland in the vicinity of the track.



Figure 5-4. Elevated view of northern culvert crossing looking in a southward direction showing broad vegetation patterns within the wetland.



## 6. Fauna

A review of field survey records contained in the Atlas of Bird Distribution in New Zealand 1999-2004 and habitat information provided on New Zealand Birds Online<sup>2</sup> suggests that the wetland vegetation including sedgeland and shrubland is likely to be inhabited by Australasian harrier, pukeko, tui, bellbird, grey warbler, brown creeper, fantail, silvereye and NZ tomtit owing to the existence of suitable nesting and feeding habitat.

A search of the herpetofauna database and a supporting narrative provided by Wildlands Consultants for the Leg 6 trail project indicates a high likelihood of occurrence of the Southern grass skink (*Oligosoma polychroma*) along the trail. The preferred habitat for this skink is damp habitat such as rank grass associated with areas of grassland, shrubland and near forest edges. Small areas of exotic grassland occur within the wetland. The database search indicates a low likelihood of occurrence of Korero gecko (*Woodworthia* sp. "Otago-large") and green skink (*Oligosoma chloronoton*) with the former likely to occupy mature beech trees and under driftwood near the lake and the latter occupying dense ground level vegetation. All three species have a conservation status of At Risk-Declining. A table summarising the search results provided by Wildlands is provided in Appendix 1.

The wetland vegetation provides a range of habitat for invertebrates. These include arboreal and ground dwelling invertebrates such as weta (*Orthoptera*), ants (*Formicidae*), spiders (*Araneae*), millipedes (*Diplopoda*), litter hoppers (*Amphipoda*) and slaters (*Porcellionidae*) many inhabiting leaf litter and decaying logs. These in turn provide food sources for insectivorous birds such as grey warbler, brown creeper, fantail and NZ tomtit.

## 7. Ecological Significance

### 7.1. Introduction

Determination of whether the wetland is significant in terms of Section 6(c) of the Resource Management Act 1991 is based on the assessment criteria listed in Appendix 3 of the Southland Regional Policy Statement 2017 (RPS). Part of the explanation to the appendix states that an area is significant if it meets one or more of the assessment criteria.

This section evaluates the affected indigenous wetland vegetation and habitats of indigenous fauna against each of the RPS assessment criteria listed below.

### 7.2. Representativeness

#### Description

- i. *Indigenous vegetation or habitat of indigenous fauna that is representative, typical or characteristic of the natural diversity of the relevant ecological district or coastal biogeographic region. This can include degraded examples where they are some of the best remaining examples of their type, or represent all that remains of indigenous biodiversity in some areas.*
- ii. *Indigenous vegetation or habitat of indigenous fauna that is a relatively large example of its type within the relevant ecological district or coastal biogeographic region.*

#### Evaluation

The indigenous wetland vegetation bordering the track exhibits natural diversity characteristic of wetlands in the Te Anau Ecological District. The wetland is a small sized example of sedgeland dominant marsh in the district.

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<sup>2</sup> [nzbirdsonline.org.nz/](http://nzbirdsonline.org.nz/)

### 7.3. Rarity/Distinctiveness

#### Description

- i. Indigenous vegetation or habitat of indigenous fauna that has been reduced to less than 20% of its former extent in the Region, or relevant land environment, ecological district, freshwater environment, or coastal biogeographic region.*
- ii. Indigenous vegetation or habitat of indigenous fauna that supports an indigenous species that is threatened, at risk, or uncommon, nationally or within the relevant ecological district or coastal biogeographic region.*
- iii. The site contains indigenous vegetation or an indigenous species at its distribution limit within Southland Region or nationally.*
- iv. Indigenous vegetation or an association of indigenous species that is distinctive, of restricted occurrence, occurs within an originally rare ecosystem, or has developed as a result of an unusual environmental factor or combinations of factors.*

#### Evaluation

The indigenous sedgeland and shrub vegetation in the wetland is located within a land environment where this vegetation has been reduced to less than 20% of its former extent nationally and possibly regionally. No threatened, at risk or uncommon plant species or fauna were observed in the vicinity of the track and additionally no species at their distribution limits were observed. The flora of the wetland is not of a restricted occurrence. The wetland is not located within an originally rare ecosystem.

### 7.4. Diversity and Pattern

#### Description

- i. Indigenous vegetation or habitat of indigenous fauna that contains a high diversity of indigenous ecosystem or habitat types, indigenous taxa, or has changes in species composition reflecting the existence of diverse natural features or ecological gradients.*

#### Evaluation

The indigenous wetland is not of a high diversity at an ecosystem or taxa level. An ecological gradient based on degree of wetness within the wetland is evident in the vegetation patterns encountered.

### 7.5. Ecological Context

#### Description

- i. Vegetation or habitat of indigenous fauna that provides or contributes to: an ecological linkage, ecological corridor or network; buffering function; or ecosystem service.*
- ii. A wetland which plays an important hydrological, biological or ecological role in the natural functioning of a water body, including a river or coastal system, or springs, lakes and streams.*
- iii. Indigenous vegetation or habitat of indigenous fauna that provides important habitat (including, but not limited to, refuges from predation, or key habitat for feeding, breeding, or resting) for indigenous species, either seasonally or permanently.*

#### Evaluation

The wetland vegetation and habitats in the vicinity of the track forms part of the ecological corridor linking areas of wetland upstream and downstream of the track. The sedgeland plays an important biological role in maintaining the stability of the riparian margins and water quality in the stream especially during high flows.



7.6. Summary

In summary, the wetland vegetation and habitats for indigenous fauna has been assessed to be of ecological significance in terms of Section 6(c) of the Resource Management Act 1991. The significance assessment reflects the representativeness of the wetland vegetation within the Upukerora Ecological District, the pattern of the vegetation types associated with the wetland and its ecological context.

8. Ecological Effects

The area of wetland impacted upon during trail construction has been estimated to be in the order of 120 m<sup>2</sup>. This figure is based on a cumulative 25 metres of trail spanning the wetland at the northern and southern streams along with a short section adjacent to a water table. The balance of the trail between the two stream extends across dry land where broom scrub occurs.

The loss of the wetland arising from trail construction represents a very small proportion of the overall area of wetland occurring upstream and downstream of the trail as shown on Figure 8-1. This is estimated to be in the order of 0.3% of the wetland area.

The effect of trail construction on the hydrological and ecological function of the wetland is assessed as less than minor.



Figure 8-1: Aerial extracted from Southland District maps depicting trail alignment in context to the wetland.



## 9. Conclusions

The affected wetland vegetation is ecologically significant.

The magnitude of the effect of construction of the trail on the wetland is very low owing to the small area of wetland affected.

No indigenous flora with a threat classification was observed in the wetland plant communities adjacent to the trail.

## References

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# **Appendix 1: Herpetofauna Database Search Results**



8 November 2017

Opus International Consultants Limited, c/- Beale Consultants, PO Box 113, Queenstown 9348.

To whom it may concern,

Please find below an assessment of lizard species (or potential lizard species) present along the Manapouri cycleway. This assessment revealed the likely presence of one lizard species (southern grass skink), and possible presence of two others at the site. At Manapouri, southern grass skinks are most likely to occur in rank grassland, shrubland, lake edges, or on / near the forest edge where they have easy access to sunlight.

Common name	Scientific name	Threat status	Likelihood of occurrence	Notes	Nearest known localities
Southern grass skink	<i>Oligosoma polychroma</i> ; Clade 5	At Risk-Declining	High	Prefers damp habitats with ground cover, including rank grass.	Found at both Lake Manapouri (incl. Frasers Beach) and Lake Te Anau. Widespread in the area, but not abundant.
Korero gecko	<i>Woodworthia</i> sp. "Otago-large"	At Risk-Declining	Low	Likely to occur in rocky areas, or in big mature beech trees. May occur under driftwood / logs near either lake.	Lake Te Anau near the start of the Kepler Track. Under driftwood / logs near Lake edge.
Green skink	<i>Oligosoma chloronoton</i>	At Risk-Declining	Low	Occupies damp areas with dense ground level vegetation.	Multiple reports around Lake Te Anau. Not recorded at Manapouri.

Yours sincerely,

Carey Knox  
Ecologist / Herpetologist



Dunedin Office:  
764 Cumberland Street, Dunedin 9016  
Ph: (03) 477 2096  
Email: kelvin.lloyd@wildlands.co.nz

**Wildland Consultants Ltd**  
99 Sala Street  
PO Box 7137, Te Ngae  
Rotorua, New Zealand  
Ph: +64 7 343 9017  
ecology@wildlands.co.nz  
www.wildlands.co.nz

Our Ref: R4957

26 February 2019

Lacey Bragg  
Environment Southland  
Private Bag 90116  
INVERCARGILL 9840

Dear Lacey

## REVIEW OF EFFECTS OF FIORDLAND TRAIL ON WETLAND VALUES

Environment Southland have received a retrospective resource consent application (APP-20191150 W4931) from the Fiordland Trails Trust to modify a wetland due to construction of a multi-use trail on the eastern margin of Lake Manapouri. The trail crosses the wetland approximately two kilometres northeast of Manapouri township. A report accompanying the application determines that the wetland is significant in terms of Section 6(c) of the RMA. The report then goes on to say that the effects of construction of the trail on the wetland will be very low owing to the small area of wetland affected. Environment Southland requires an independent assessment of the likely effects of trail construction on the wetland.

The remainder of this letter comprises technical comments on the likely effects.

### Wetland Location and Context

The wetland occurs at the base of small scarp on the eastern shore of Lake Manapouri. It is likely to be a spring-fed wetland as there is no obvious stream channel upstream of the wetland. The wetland occurs in mosaic of fernland, mānuka (*Leptospermum scoparium*) scrub, and Scotch broom (*Cytisus scoparius*). An informal walking track zigzags from the nearby Manapouri - Te Anau Highway to the lakeshore, just south of the wetland.

The application states that the trail crosses approximately 35 metres of the wetland and is formed to a width of three metres. Two streams on each side of the wetland define it and are associated with culverts placed under the trail. A water table has been formed on the upstream side of the trail to direct sub-surface flows from the wetland into the southern culvert.

### Ecological Assessment

The ecological assessment (Beale Consultants 2018) accompanying the application classifies the wetland as a marsh wetland, with the dominant wetland plant being purei (*Carex secta*), with



shrubs of mingimingi (*Coprosma propinqua*) and weeping mapou (*Myrsine divaricata*) on its margins. Wet ground between the two streams is occupied by stands of mānuka, shrubs of mingimingi, and the sedge rautahi (*Carex coriacea*) and swamp kiokio (*Parablechnum minus*), and this vegetation also comprises wetland vegetation. The report states that no plant species with a threat classification were observed in the wetland in the vicinity of the track. The report also indicates that one or more lizard species with a threat classification of At Risk-Declining may be present.

We note that one plant species found at the site, mānuka, has a current threat classification of At Risk-Declining, on the basis of the potential threat posed by myrtle rust (*Austropuccinia psidii*). Little weight has been attached to this due to the abundance of mānuka in Southland Region, because myrtle rust has not yet been detected in the lower South Island, and because mānuka is not a species that is commonly infected by myrtle rust in the North Island and northern South Island.

#### Effects Assessment - Beale Consultants

Beale Consultants (2018) assesses the effects of trail construction on the hydrological and ecological function of the wetland as being less than minor, due to the 120 m<sup>2</sup> loss of wetland habitat being a small proportion of the total wetland area.

#### Effects Assessment - Wildland Consultants

In my opinion, adverse effects on the wetland may be more than minor for the following reasons:

- The wetland has been classified as a marsh wetland, a wetland class that has been significantly cleared and modified in most parts of New Zealand.
- Clearance of indigenous wetland vegetation, while representing a relatively small wetland area, increases the cumulative loss of wetland extent, and the effects of this have not been avoided, remedied, or mitigated.
- The trail cuts across the flow of water in the upper part of the wetland, and diverts previously inflowing water into an adjacent stream. This is likely to cause local drying of the wetland adjacent to the water table, and reduce water flow to the larger downstream part of the wetland. These effects are likely to cause local changes in wetland vegetation over time, allowing facultative wetland species such as mānuka to increase in abundance at the expense of obligate wetland species such as purei.
- It is not clear if indigenous fish would use the small streams on each side of the wetland, but if so, the culverts installed could potentially provide barriers to fish passage.

#### Conclusion

The Beale Consultants (2018) report considers the effects on the wetland to be less than minor, but assesses only the area cleared in coming to this conclusion.

In my opinion the effects of constructing the trail across the wetland are likely to have been more than minor, due to hydrological effects which are likely to change the composition of the remaining wetland vegetation over time. Remediation, mitigation, or compensation actions could potentially address these adverse effects.

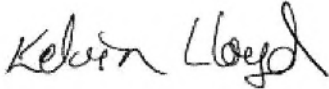
Please don't hesitate to contact me if you require further input or discussion.



REFERENCE

Beale Consultants 2018: Te Anau – Manapouri multi-purpose trail. Ecological assessment of Leg 6 wetland crossing. Prepared for the Fiordland Trails Trust.

Yours sincerely

A handwritten signature in black ink that reads "Kelvin Lloyd". The signature is written in a cursive style with a large, prominent 'K' and 'L'.

Kelvin Lloyd  
Principal Ecologist



Dunedin Office:  
764 Cumberland Street, Dunedin 9016  
Ph: (03) 477 2096  
Email: kelvin.lloyd@wildlands.co.nz

#### Wildland Consultants Ltd

99 Sala Street  
PO Box 7137, Te Ngae  
Rotorua, New Zealand  
Ph: +64 7 343 9017  
ecology@wildlands.co.nz  
www.wildlands.co.nz

Our Ref: 4957b

8 April 2019

Sonja Nicol  
Environment Southland  
Private Bag 90116  
INVERCARGILL 9840

Dear Sonja

### REVIEW OF EFFECTS OF THE FIORDLAND TRAIL ON WETLAND VALUES

Environment Southland have received a retrospective resource consent application (APP-20191150 W4931) from the Fiordland Trails Trust to modify a wetland due to construction of a multi-use trail on the eastern margin of Lake Manapouri. The trail crosses the wetland approximately two kilometres northeast of Manapouri township. A report accompanying the application states that the wetland is significant in terms of Section 6(c) of the RMA. The report then goes on to say that the effects of construction of the trail on the wetland are very low owing to the small area of wetland affected. Environment Southland required an independent assessment of the likely effects of trail construction on the wetland, which was provided on 26 February 2019 (Wildland Consultants 2019).

Following this, it was suggested (K. Lloyd, email to Environment Southland, 12 March 2019) that potential fish passage through culverts installed under the trail should be reassessed, a ditch excavated on one side of the formed trail should be filled in, monitoring of the infilled area should be undertaken to check for settling of the substrate (with re-filling if required), and monitoring of subsequent colonisation by rautahi (*Carex coriacea*) should be undertaken. The applicant has agreed to undertake these works and monitoring, and provided photographic evidence that showed fish passage should not be restricted through the culverts. If the infilling work is carried out successfully, this should remedy the adverse hydrological effects on the wetland to the point that they are less than minor.

The residual adverse effects relate to the direct loss of wetland vegetation caused by trail construction.

#### **EXTENT OF WETLAND LOSS**

Beale Consultants (2018) assessed the effects of trail construction on the hydrological and ecological function of the wetland as being less than minor, due to the 120 m<sup>2</sup> loss of wetland habitat being a small proportion (0.3%) of the total wetland area. However, the wetland extent indicated by Beale Consultants (2018) includes non-wetland habitat near the lake, and it is not clear

what area of wetland extent was used to calculate this percentage. Assessment of satellite imagery indicates, however, that the wetland may occupy only approximately 0.75 hectares, and thus the extent of clearance would be 1.6% of the wetland extent.

### **WETLAND SIGNIFICANCE**

The wetland was assessed as being significant by Beale Consultants (2018) in terms of the Representativeness, Rarity, and Ecological Context criteria in the Southland Regional Policy Statement:

- (a) *Representativeness*
  - (i) *Indigenous vegetation or habitat of indigenous fauna that is representative, typical or characteristic of the natural diversity of the relevant ecological district or coastal biogeographic region. This can include degraded examples where they are some of the best remaining examples of their type, or represent all that remains of indigenous biodiversity in some areas.*
- (b) *Rarity/Distinctiveness*
  - (i) *Indigenous vegetation or habitat of indigenous fauna that has been reduced to less than 20% of its former extent in the Region, or relevant land environment, ecological district, freshwater environment, or coastal biogeographic region.*
- (d) *Ecological Context*
  - (i) *Vegetation or habitat of indigenous fauna that provides or contributes to: an ecological linkage, ecological corridor or network; buffering function; or ecosystem service.*
  - (ii) *A wetland which plays an important hydrological, biological or ecological role in the natural functioning of a water body, including a river or coastal system, or springs, lakes and streams.*

The assessments against the Representativeness and Rarity criteria are appropriate, but the importance of this wetland in terms of the ecological context criteria is less certain.

### **PLANNING CONTEXT**

The retrospective consent sought has the status of a non-complying activity. As such, there is a relatively high test under Section 104D of the RMA. Before a consent authority can consider to grant or refuse a consent for a non-complying activity, it must be satisfied that either the effects of the activity are no more than minor, or the activities are not contrary to the policies and objectives of the relevant planning documents.

Relevant policies from the proposed Southland Water and Land Plan include:

- Objective 1 *Land and water and associated ecosystems are sustainably managed as integrated natural resources, recognising the connectivity between surface water and groundwater, and between freshwater, land and the coast.*
- Objective 14 *The range and diversity of indigenous ecosystem types and habitats within rivers, estuaries, wetlands and lakes, including their margins, and their life-supporting capacity are maintained or enhanced.*
- Objective 16 *Public access to, and along, river (excluding ephemeral rivers) and lake beds is maintained and enhanced, except in circumstances where public health and safety or significant indigenous biodiversity values are at risk.*



Objective 17 *The natural character values of wetlands, rivers and lakes and their margins, including channel and bed form, rapids, seasonably variable flows and natural habitats, are protected from inappropriate use and development.*

Objective 18 *All activities operate in accordance with "good management practice" or better to optimise efficient resource use safeguard the life supporting capacity of the region's land and soils and maintain or improve the quality and quantity of the region's water resources.*

**Policy 32 - Protect significant indigenous vegetation and habitat (pSWLP)**

*Protect significant indigenous vegetation and significant habitats of indigenous fauna associated with natural wetlands, lakes and rivers and their margins.*

**Policy 33 - Adverse effects on natural wetlands**

*Prevent the reduction in area, function and quality of natural wetlands, including through drainage, discharges and vegetation removal.*

**Policy 34 - Restoration of existing wetlands, the creation of wetlands and riparian planting**

*Recognise the importance of wetlands and indigenous biodiversity, particularly their potential to improve water quality, offset peak river flows and assist with flood control, through encouraging:*

1. *the maintenance and restoration of existing natural wetlands and the creation of new wetlands; and*
2. *the establishment of wetland areas and associated indigenous riparian plantings, including on farm, in subdivisions, on industrial sites and for community sewerage schemes.*

**CONSISTENCY WITH PLAN OBJECTIVES AND POLICY**

Construction of the trail through the wetland would appear to be at least partly contrary to Objective 14 and Objective 17, and contrary to Policy 32 and Policy 33.

**ARE THE EFFECTS LESS THAN MINOR?**

Residual adverse effects on the wetland are more than minor, for the following reasons. Various matters need to be considered to determine the scale of residual effects:

- The wetland has been classified as a representative marsh wetland, a wetland class that has is one of the most reduced classes of wetland in most parts of New Zealand.
- The wetland is located within a land environment that retains less than 20% of its original indigenous cover nationally.
- Recent research in Southland has shown that the rate of wetland loss has not slowed, with 10.5% of Southland's remaining wetlands (excluding those in Fiordland on Rakiura) being cleared between 1990 and 2012 (Robertson *et al.*, in press).
- Clearance of indigenous wetland vegetation, while representing a relatively small wetland area, increases the cumulative loss of wetland extent, and the effects of this have not been avoided, remedied, or mitigated.

Overall, even though the extent of wetland loss is relatively small, the residual adverse effects are more than minor, for the reasons set out above.

**OPTIONS TO FURTHER REDUCE THE RESIDUAL ADVERSE EFFECTS**

A grove of deciduous trees which are almost certainly willows (*Salix* spp.) occur approximately 100 metres upstream of the affected wetland. These are most likely to be crack willow (*Salix fragilis*) but could potentially be grey willow (*Salix cineria*). In either case, they are significant weeds of wetland ecosystems, and are likely spread further downstream, and into the affected

wetland over time. Willow invasion could potentially displace indigenous wetland vegetation and alter the hydrology of the wetland.

Eradication of these willow trees would therefore represent a very positive effect that may reduce the residual adverse effects on the wetland to less than minor. Willows can be drilled and poisoned *in situ*. Willow control sites should be monitored for regrowth and regeneration, with additional control undertaken if required.

Scotch broom (*Cytisus scoparius*) occurs in patches on the wetland margin, and while not likely to have adverse effects on the wetland, are very likely to be having adverse effects on the natural character of the wetland. Control of this Scotch broom could therefore mitigate adverse effects on natural character. Follow-up control would also be needed. Encouraging regeneration of mānuka on wetland margins, or planting it, would help to reduce future invasion of Scotch broom.

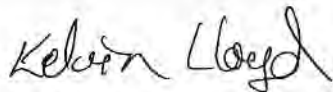
### **CONCLUSION**

Remediation of the adverse hydrological effects on the wetland is likely to reduce those effects to a less than minor level. Residual effects of wetland vegetation loss caused by track construction could be addressed by eradication of willow trees. Effects on natural character of the wetland could be mitigated by control of Scotch broom and increasing indigenous plant dominance on the wetland margins.

It should be noted that these conclusions are made without the benefit of having visited the site.

Please don't hesitate to contact me if you require further input or discussion.

Yours sincerely



Kelvin Lloyd  
Principal Ecologist

### **REFERENCES**

- Beale Consultants 2018: Te Anau - Manapouri multi-purpose trail. Ecological assessment of Leg 6 wetland crossing. Prepared for the Fiordland Trails Trust.
- Robertson H.A., Ausseil A-G., Rance B., Betts H., and Pomeroy E. In press. Loss of wetlands since 1990 in Southland, New Zealand. *New Zealand Journal of Ecology* 43: in press.
- Wildland Consultants 2019: Review of effects of Fiordland Trail on wetland values. *Wildland Consultants Ltd Contract Report No. 4957*. Prepared for Environment Southland.



Dunedin Office:  
764 Cumberland Street, Dunedin 9016  
Ph: (03) 477 2096  
Email: kelvin.lloyd@wildlands.co.nz

#### Wildland Consultants Ltd

99 Sala Street  
PO Box 7137, Te Ngae  
Rotorua, New Zealand  
Ph: +64 7 343 9017  
ecology@wildlands.co.nz  
www.wildlands.co.nz

Our Ref: 4957c

11 April 2019

Sonja Nicol  
Environment Southland  
Private Bag 90116  
INVERCARGILL 9840

Dear Sonja

### REVIEW OF EFFECTS OF THE FIORDLAND TRAIL ON WETLAND VALUES

Environment Southland have received a retrospective resource consent application (APP-20191150 W4931) from the Fiordland Trails Trust to modify a wetland due to construction of a multi-use trail on the eastern margin of Lake Manapouri. The trail crosses the wetland approximately two kilometres northeast of Manapouri township. A report accompanying the application states that the wetland is significant in terms of Section 6(c) of the RMA. The report then goes on to say that the effects of construction of the trail on the wetland are very low owing to the small area of wetland affected. Environment Southland required an independent assessment of the likely effects of trail construction on the wetland, which was provided on 26 February 2019 (Wildland Consultants 2019a).

Following this, it was suggested (K. Lloyd, email to Environment Southland, 13 March 2019) that potential fish passage through culverts installed under the trail should be reassessed, a ditch excavated on one side of the formed trail should be filled in, monitoring of the infilled area should be undertaken to check for settling of the substrate (with re-filling if required), and monitoring of subsequent colonisation by rautahi (*Carex coriacea*) should be undertaken. The applicant has agreed to undertake these works and monitoring, and provided photographic evidence that showed fish passage should not be restricted through the culverts. If the infilling work is carried out successfully, this should remedy the adverse hydrological effects on the wetland to the point that they are less than minor.

The residual adverse effects related to the direct loss of wetland vegetation caused by trail construction, and control of willows (*Salix* spp.) upstream of the wetland, and of Scotch broom (*Cytisus scoparius*) adjacent to the trail through the wetland, were suggested as options to mitigate these residual adverse effects (Wildland Consultants 2019b). The Fiordland Trails Trust noted that the willow trees were on private land, creating difficulty for enforcement in consent conditions, and proposed that instead, the Trust would undertake further pest plant management within the wetland as an alternative option to enhance the wetland.



### **PROPOSED WEED CONTROL**

The Trust proposes to control noxious weed species including gorse (*Ulex europaeus*), Scotch broom, and Darwin's barberry (*Berberis darwinii*) in an approximate 2,000 metre squared area centred on the trail where it crosses the wetland, in order to improve indigenous plant dominance within the wetland and adjacent areas. The Trust would also discuss removal of the upstream willow trees with the landholder.

### **EVALUATION**

The proposed weed control would comprise a positive effect on the indigenous wetland vegetation and vegetation on wetland margins. This positive effect should be sufficient to address the residual adverse effects on the wetland. Performance standards, such as post-operational inspection and reporting, should be considered, to ensure the weed control is effective and that it is not adversely affecting indigenous vegetation.

Ongoing discussion by the Trust with the upstream landholder is supported; if this also enabled the upstream willow trees to be controlled, that would be very positive.

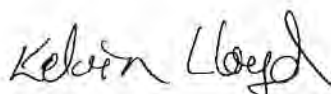
### **CONCLUSION**

In our opinion, the residual adverse effects of wetland vegetation clearance caused by track construction can be addressed by the positive effects of weed control over the 2,000 metre squared area centred on the wetland and its riparian margins. Overall, the ecological effects on the wetland should be no more than minor if these actions, and the actions suggested earlier, are undertaken with sufficient care and diligence.

It should be noted that these conclusions are made without the benefit of having visited the site.

Please don't hesitate to contact me if you require further input or discussion.

Yours sincerely



Kelvin Lloyd  
Principal Ecologist

### **REFERENCES**

Beale Consultants 2018: Te Anau - Manapouri multi-purpose trail. Ecological assessment of Leg 6 wetland crossing. Prepared for the Fiordland Trails Trust.

Robertson H.A., Ausseil A-G., Rance B., Betts H., and Pomeroy E. In press. Loss of wetlands since 1990 in Southland, New Zealand. *New Zealand Journal of Ecology* 43: in press.

Wildland Consultants 2019a: Review of effects of Fiordland Trail on wetland values. *Wildland Consultants Ltd Contract Report No. 4957*. Prepared for Environment Southland.

Wildland Consultants 2019b: Review of effects of Fiordland Trail on wetland values.  
*Wildland Consultants Ltd Contract Report No. 4957b.* Prepared for Environment  
Southland.

**From:** Sonya Nicol <[sonya@slwp.co.nz](mailto:sonya@slwp.co.nz)>  
**Sent:** Friday, 12 April 2019 9:28 a.m.  
**To:** McSoriley, Luke <[luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)>  
**Cc:** David Boniface <[dajeck@xtra.co.nz](mailto:dajeck@xtra.co.nz)>; Resource Consents <[ResourceConsents@es.govt.nz](mailto:ResourceConsents@es.govt.nz)>  
**Subject:** RE: Fiordland Trails Trust - APP-20191150

Yes, I consider that would be the best way to address that too.

Thanks

Sonya

**From:** McSoriley, Luke <[luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)>  
**Sent:** Friday, 12 April 2019 9:17 AM  
**To:** Sonya Nicol <[sonya@slwp.co.nz](mailto:sonya@slwp.co.nz)>  
**Cc:** David Boniface <[dajeck@xtra.co.nz](mailto:dajeck@xtra.co.nz)>; Resource Consents <[ResourceConsents@es.govt.nz](mailto:ResourceConsents@es.govt.nz)>  
**Subject:** RE: Fiordland Trails Trust - APP-20191150

Good Morning

Thank you for your e-mail and for relaying the comments from Wildlands.  
The 10m requirement and inspection of the weed control should be fine and possibly these matters could be covered by conditions?  
If you require anything further from us please let me know.

Regards

**Luke McSoriley**  
Workgroup Leader - Planning

WSP Opus, Opus House, 65 Arena Avenue, Invercargill 9810, New Zealand  
PO Box 647, Invercargill 9840, New Zealand

+64 3 211 3589 +64 27 269 1644 [luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)



[www.wsp-opus.co.nz](http://www.wsp-opus.co.nz)

**From:** Sonya Nicol <[sonya@slwp.co.nz](mailto:sonya@slwp.co.nz)>  
**Sent:** Friday, 12 April 2019 8:53 a.m.  
**To:** McSoriley, Luke <[luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)>  
**Cc:** David Boniface <[dajeck@xtra.co.nz](mailto:dajeck@xtra.co.nz)>; Resource Consents <[ResourceConsents@es.govt.nz](mailto:ResourceConsents@es.govt.nz)>  
**Subject:** RE: Fiordland Trails Trust - APP-20191150

Hi Luke,

Wildlands Consultants Ltd (Kelvin) has advised that he supports the FTT revised proposal.

He suggested to avoid ambiguity, controlling weeds out to 10m either side of the trail (within the wetland area) would be better, rather than an 8-10 m range.



There would ideally be some performance standards, with inspection of the areas after control, to assess both the effectiveness of weed control, and that the control is not adversely affecting indigenous vegetation.

He would also support FTT continuing to discuss with the private landholder management of the willow trees, though notes that they can't commit to anything requiring third party permission unless they already have such permission.

Regards

Sonya

**From:** Sonya Nicol  
**Sent:** Thursday, 11 April 2019 5:06 PM  
**To:** 'McSoriley, Luke' <[luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)>  
**Cc:** David Boniface <[dajeck@xtra.co.nz](mailto:dajeck@xtra.co.nz)>; 'Resource Consents' <[ResourceConsents@es.govt.nz](mailto:ResourceConsents@es.govt.nz)>  
**Subject:** RE: Fiordland Trails Trust - APP-20191150

Hi Luke,

Thanks for this. I have sent it on to Wildlands Consultants Ltd to get their comment on it. I will let you know the feedback once I have it.

Regards,

Sonya

**From:** McSoriley, Luke <[luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)>  
**Sent:** Thursday, 11 April 2019 3:14 PM  
**To:** Sonya Nicol <[sonya@slwp.co.nz](mailto:sonya@slwp.co.nz)>  
**Cc:** David Boniface <[dajeck@xtra.co.nz](mailto:dajeck@xtra.co.nz)>  
**Subject:** Fiordland Trails Trust - APP-20191150

Hello Sonya

Thank you for sending through the additional assessment from Wildlands Consultants Ltd on the Fiordland Trails Trust application.

Fiordland Trails Trust is willing to remediate adverse hydrological effects on the wetland through pest plant management.

The Trust would like to amend the application to promote clearance of exotic pest species in order to increase indigenous plant dominance.

Attached is a document detailing the pest plant management works proposed.

The area of pest plant management detailed in the document is approximately 2000sqm in size.

The photograph below provides an indication of the extent of pest plants present in this area.

Unfortunately the grove of willow trees referenced in the additional Wildlands Consultants Ltd assessment are located on private land.

The Trust can and will discuss removal of these trees with the landowner but cannot commit to clearance of them as part of a resource consent process.

Please see answers below in response to your questions on the culverts.



Feel free to contact me if you have any further questions.

Regards



**Luke McSoriley**

Workgroup Leader - Planning

WSP Opus, Opus House, 65 Arena Avenue, Invercargill 9810, New Zealand  
PO Box 647, Invercargill 9840, New Zealand

☎ +64 3 211 3589 📠 +64 27 269 1644 ✉ luke.mcsoriley@wsp-opus.co.nz



[www.wsp-opus.co.nz](http://www.wsp-opus.co.nz)

**From:** David Boniface <[dajeck@xtra.co.nz](mailto:dajeck@xtra.co.nz)>

**Sent:** Thursday, 11 April 2019 2:31 p.m.

**To:** McSoriley, Luke <[luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)>

**Cc:** [simon@bealeconsultants.co.nz](mailto:simon@bealeconsultants.co.nz); [stephenhoskin@hotmail.com](mailto:stephenhoskin@hotmail.com); [julieburgess63@yahoo.co.nz](mailto:julieburgess63@yahoo.co.nz)

Alistar Burgess <[julieburgess63@yahoo.co.nz](mailto:julieburgess63@yahoo.co.nz)>

**Subject:** Re: FW: Fiordland Trails Trust - APP-20191150



Hi Luke,

The two 800mm dia culverts are each 6 metres long and are made of polyethylene.

Attached also is a sketch and our offer of additional noxious weed eradication work that may offset the influence the trail has on the wetland.

---

Happy to discuss.

Regards

David

On 11 April 2019 at 13:49 "McSoriley, Luke" <[luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)> wrote:

Hi David

A couple more questions.

Ta

Luke

**From:** Sonya Nicol <[sonya@slwp.co.nz](mailto:sonya@slwp.co.nz)>  
**Sent:** Thursday, 11 April 2019 1:46 p.m.  
**To:** McSoriley, Luke <[luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)>  
**Cc:** Resource Consents <[ResourceConsents@es.govt.nz](mailto:ResourceConsents@es.govt.nz)>  
**Subject:** Fiordland Trails Trust - APP-20191150

Hi Luke,

When you come back with that other information from the FTT/Simon B this afternoon, can you please also confirm the length of the two culverts under the trail – the width is 800mm in the application. Can you please also confirm if they are e.g. plastic culverts, or if not, what they are made from.

The other culverts based on the photos you provided are 400mm x 6 metres



Thanks

Sonya

**SONYA NICOL**

**Southern Land & Water Planning**

T 027 505 0077 | E [sonya@slwp.co.nz](mailto:sonya@slwp.co.nz) | W [www.slwp.co.nz](http://www.slwp.co.nz)



RESOURCE CONSENTS | POLICY ADVICE | LANDSCAPE ASSESSMENTS & PLANS | FARM ENVIRONMENT PLANS | DOC CONCESSIONS

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RE: s92 Further information request - Fiordland Trails Trust

Hi Sonya

Thank you for the update.

The culverts in the wetland require resource consent under Rule 74 of the pSWLP and form part of the Trail. We have sought resource consent under Rule 74 of the pSWLP for wetland modification.

As the application is retrospective all affected parties have a good understanding of what has been constructed including the culverts.

We also note that the culverts in the wetland are permitted under the RWP. As noted in the response to the RFI the culverts meet the permitted conditions of Rule 28 of the RWP.

Given the permitted status, what environmental effects associated with the culverts could be of a concern? We don't consider updated written approvals or further consultation necessary.

Regards



**Luke McSoriley**

Workgroup Leader - Planning

WSP Opus, Opus House, 65 Arena Avenue, Invercargill 9810, New Zealand  
PO Box 647, Invercargill 9840, New Zealand

☎ +64 3 211 3589 📠 +64 27 269 1644 ✉ [luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)



[www.wsp-opus.co.nz](http://www.wsp-opus.co.nz)

**From:** Sonya Nicol <[sonya@slwp.co.nz](mailto:sonya@slwp.co.nz)>  
**Sent:** Tuesday, 2 April 2019 9:08 a.m.  
**To:** McSoriley, Luke <[luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)>  
**Cc:** Resource Consents <[ResourceConsents@es.govt.nz](mailto:ResourceConsents@es.govt.nz)>  
**Subject:** RE: s92 Further information request - Fiordland Trails Trust

Hi Luke,

Thanks for the revised information. I will get Kelvin to review it, and provide updated technical comments on if the amendments and conditions proposed will overcome his original assessment that the effects on the wetland from the trail are more than minor.

One question for you – with the application now also seeking consent for the culverts, are you/ have you sought updated approvals from DOC, F&G and TAMI? I note in their approvals they looked at photos of the trail but it didn't include the culvert plan you have just submitted?

Thanks

Sonya

**From:** McSoriley, Luke <[luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)>  
**Sent:** Monday, 1 April 2019 2:16 PM  
**To:** Sonya Nicol <[sonya@slwp.co.nz](mailto:sonya@slwp.co.nz)>

**Cc:** Resource Consents <[ResourceConsents@es.govt.nz](mailto:ResourceConsents@es.govt.nz)>; David Boniface <[dajeck@xtra.co.nz](mailto:dajeck@xtra.co.nz)>  
**Subject:** RE: s92 Further information request - Fiordland Trails Trust

Hello Sonya

Please find attached a response to the request for further information.

Regards



**Luke McSoriley**  
Workgroup Leader - Planning

WSP Opus, Opus House, 65 Arena Avenue, Invercargill 9810, New Zealand  
PO Box 647, Invercargill 9840, New Zealand

+64 3 211 3589 +64 27 269 1644 [luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)



[www.wsp-opus.co.nz](http://www.wsp-opus.co.nz)

**From:** Sonya Nicol <[sonya@slwp.co.nz](mailto:sonya@slwp.co.nz)>  
**Sent:** Thursday, 7 March 2019 1:05 p.m.  
**To:** McSoriley, Luke <[luke.mcsoriley@wsp-opus.co.nz](mailto:luke.mcsoriley@wsp-opus.co.nz)>  
**Cc:** Resource Consents <[ResourceConsents@es.govt.nz](mailto:ResourceConsents@es.govt.nz)>  
**Subject:** s92 Further information request - Fiordland Trails Trust

Hello Luke,

Further to our conversation this week, please find attached a s92 further information request for Leg 6 of the Fiordland Trails Trust application.

Also, I don't have appear to have an email address for the Fiordland Trails Trust contact for this application – can you please confirm it for me?

Please don't hesitate to contact me with any questions.

Regards

Sonya

**SONYA NICOL**

**Southern Land & Water Planning**  
T 027 505 0077 | E [sonya@slwp.co.nz](mailto:sonya@slwp.co.nz) | W [www.slwp.co.nz](http://www.slwp.co.nz)



## Appendix D – Forms A & B

# Application for Resource Consent (PART A)

This application is made under Section 88 of the Resource Management Act 1991



The purpose of this Part A form and the relevant Part B form(s) is to provide applications with guidance on information that is required under the Resource Management Act 1991. Please note that these forms are to act as a guide only, and Environment Southland reserves the right to request additional information.

To: Environment Southland  
Private Bag 90116  
Invercargill 9840

### Full name, address and contact details of applicant (in whose name consent is to be issued)

Name: See application

Address: See application

Email: See application

Phone: See application Preferred Additional Fax: \_\_\_\_\_

### Consultant contact details (if different from above)

Contact name/agent: See application

Address: See application

Email: See application

Phone: See application Preferred Additional Fax: \_\_\_\_\_

Please tick the box for the consent(s) you are applying for and complete the relevant Part B form(s) where available:

See Application - Wetland Modification

Land Use	Discharge	Coastal
<input type="checkbox"/> Bore/well	<input type="checkbox"/> To air	<input type="checkbox"/> Whitebait stand
<input type="checkbox"/> New or expanded dairy farming	<input type="checkbox"/> To water	<input type="checkbox"/> Structures/occupation of space
<input type="checkbox"/> Effluent storage	<input type="checkbox"/> To land	<input type="checkbox"/> Removal of natural materials
<input type="checkbox"/> Cultivation	<b>Water</b>	<input type="checkbox"/> Disturb foreshore/seabed
<input type="checkbox"/> Tree planting	<input type="checkbox"/> Take and use surface water	<input type="checkbox"/> Discharge/deposit substances
<input type="checkbox"/> Gravel extraction	<input type="checkbox"/> Take and use groundwater	<input type="checkbox"/> Commercial surface water activity
<input type="checkbox"/> Feed-pad, wintering pad, calving pad or silage pad	<input type="checkbox"/> Dam water	<input type="checkbox"/> Reclaim/drain foreshore/seabed
<input type="checkbox"/> Riverbed activity	<input checked="" type="checkbox"/> Divert water	<input type="checkbox"/> Marine farming
<input type="checkbox"/> Bridges and culverts		<input type="checkbox"/> Other coastal activities

1 Are there any **current** or **expired** consents relating to this proposal?

Yes  No

If yes, please provide consent number(s) and description:

APP-2019-1150  
(Refer attached RCA)

2 Are any other consents required from Environment Southland or **other authorities**?

Yes  No

If yes, please state the relevant authority and the type of consent(s) required:

App-2019-1150  
(Refer attached RCA)

3 For what **purpose** is this consent(s) required: (e.g. discharge of effluent, gravel extraction etc.)

See application

4 **Location** of proposed activity

Address: See application

Legal Description: See application

Map Reference (NZTM 2000): See application N

5 The name and address of the **owner /occupier**: (if other than the applicant)

Name: See application Phone: See application

Address: See application

6 Please attach a map or a coloured aerial photograph, showing at a minimum, the location of the proposed activities.

See application



## 7 Assessment of effects on the environment (AEE)

Please complete the applicable Part B form(s) for the proposed activities. For those activities where no Part B form is available, please attach a written statement that assesses the effects that your activities may have on the environment. An assessment of effects **must** include the following information:

- (a) *if it likely that the activity will result in any significant adverse effect on the environment, a description of any possible alternative locations or methods for undertaking the activity;*
- (b) *an assessment of the actual or potential effect on the environment of the activity;*
- (c) *if the activity includes the use of hazardous substances and installations, an assessment of any risks to the environment that are likely to arise from such use;*
- (d) *if the activity includes the discharge of any contaminant, a description of—*
  - (i) *the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and*
  - (ii) *any possible alternative methods of discharge, including discharge into any other receiving environment;*
- (e) *a description of the mitigation measures (safeguards and contingency plans where relevant) to be undertaken to help or prevent or reduce the actual or potential effect;*
- (f) *identification of the persons affected by the activity, any consultation undertaken, and any response to the views of any persons consulted;*
- (g) *if the scale and significance of the activity's effects are such that monitoring is required, a description of how and by whom the effects will be monitored if the activity is approved;*
- (h) *if the activity will, or is likely to, have adverse effects that are more than minor on the exercise of a protected customary right, a description of possible alternative locations or methods for the exercise of the activity (unless written approval for the activity is given by the protected customary rights group).*

You should also include:

- (a) *an assessment of the activity against any relevant provisions of any relevant objectives, policies, or rules;*
- (b) *any information specified to be included in the application in accordance with the relevant regional plan;*
- (c) *for an application to replace an existing consent, an assessment of the value of the investment of the existing consent holder:*

An assessment of effects **must** address the following matters:

- (a) *any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects;*
- (b) *any physical effect on the locality, including any landscape and visual effects;*
- (c) *any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity;*
- (d) *any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations;*
- (e) *any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants;*
- (f) *any risk to the neighbourhood, the wider community, or the environment through natural hazards or the use of hazardous substances or hazardous installations.*

**8 Affected Parties**

Please attach written approval from parties who may be affected by your activity. *Written Approval of an Affected Party* forms are available on the Environment Southland website. During the processing of your application, Council may determine that additional approvals are required.

**9 Correspondence from Council when using a consultant**

It is standard practice that both you and your consultant are copied into all correspondence relating to the consent process. This is so that you know what is going on with your application. Please let us know below if you would like us to only contact your consultant. This means you will only hear from us when your application is/is not accepted, when a decision is made or if we feel that you need to be contacted.

I want all correspondence about my application to go to my consultant only  Yes  No

**10 Site visit from the Consents Team**

See application

Consents staff are able to meet with you, visit your site and see what you are proposing to do. We find that this is beneficial to everyone involved. The cost of the visit will be included in the total cost of processing your consent. However, we find that applications that have an on-site visit are processed with less congestion and at a similar or lesser overall cost. Please let us know below if you would like us to come and see your site.

I would like a member of the Consents Team to visit my site  Yes  No

**11 How much will it cost to process my application?**

The cost of a consent depends on the complexity of the activities. Staff time is charged out at a rate of \$145/hr and vehicle use for site visits is charged at \$0.73/km (inclusive of GST).

The fees shown below under section two are **deposits to be paid at the time of application**. Due to the complexity of these activities, this deposit will not usually cover the full cost of processing the application. **Further costs may be incurred** relating to staff time, disbursements, legal charges, consultation fees, and hearing commissioner fees. Environment Southland’s User Charges and Fees document is available at:

[www.es.govt.nz/fees-and-charges](http://www.es.govt.nz/fees-and-charges)

When the consent has been processed you will receive an invoice for an additional fee, or for a refund.

The Council’s user charges are fixed under Section 36 of the Resource Management Act 1991. Our fee schedule is:

<b>1. Fixed fee:</b>	
Bores and wells	<b>\$290</b>
Whitebait stand	<b>\$220</b>
<b>2. Deposit:</b>	
All other non-notified applications including: <ul style="list-style-type: none"> <li>• Certificates of compliance</li> <li>• Changes to consent conditions (variations)</li> <li>• Change of lapse date</li> </ul>	<b>\$1,500</b>
Applications that require notification or limited notification	<b>\$2,000</b>

**How to pay**

Environment Southland accepts payment in the forms of cash, Eftpos, cheque, or electronic transfer. All electronic transfers must include the applicant’s name and “consent application” as a reference. Please make electronic payments to: Environment Southland, 01-0961-0018998-00.

**User Charges**

Please note that additional Annual User Charges will apply to all consents. These are payable in advance on the first day of July each year. Tables 4, 5 and 6 of the Environment Southland User Charges and Fees Schedule outlines the fees associated with Annual Administration Charges and Annual Consent Monitoring and Inspection Charges. Table 7: Annual Research and Monitoring Charges applies only to surface and groundwater takes and comprises the following:

- **Surface water takes (per consent, for volumes up to 50,000 m<sup>3</sup>/day):**
  - A charge of **\$1.89** per year per cubic metre authorised as a maximum daily take.
  - Minimum of **\$138**, maximum of **\$7,585**.
- **Surface water takes (per consent, for volumes over 50,000 m<sup>3</sup>/day):**
  - **\$0.0031** per cubic metre authorised as a maximum daily take.
- **Groundwater takes (per consent):**
  - A charge of **\$0.89** per year per cubic metre.
  - Minimum of **\$162**, maximum of **\$1,782**.

Municipal and stock water discount (of 50%) no longer applies.

**12 Checklist: Have you included the following?**

- |                                     |  |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | Payment of the required deposit ( <i>see fee schedule</i> )  |
| <input checked="" type="checkbox"/> | Written approval from all potentially affected parties ( <i>forms available from the Environment Southland website</i> ) |
| <input checked="" type="checkbox"/> | Site plan/location map/sketch of the proposed activity   |
| <input type="checkbox"/>            | N/A A copy of the Certificate of Incorporation ( <i>where applicant is a company</i> )                                   |
| <input checked="" type="checkbox"/> | Part B form(s) specific to your activity and/or a separate assessment of environmental effects (AEE)                     |

**Note:**

(a) *If your application does not contain the necessary information and the appropriate fee, Environment Southland must return the application.*

**Signature of applicant**

***I hereby certify that to the best of my knowledge and belief, the information given in this application is true and correct.***

***I undertake to pay all actual and reasonable application processing costs incurred by Environment Southland.***

Name (block capitals) See application

Signed \_\_\_\_\_ Date See application

***(Signature of applicant or person authorised to sign on behalf of applicant)***



# Application to Dam or Divert Water (PART B)

This application is made under Section 88 of the Resource Management Act 1991



A complete Part A form needs to be provided with this Part B form. The purpose of this Part B form is to provide applicants with guidance on information that is required under the Resource Management Act 1991. These forms are to act as a guide only and Environment Southland reserves the right to request additional information. Please also refer to Appendix A of the Regional Water Plan for Southland, 2010.

1 What is the application for?

<input checked="" type="checkbox"/>	To divert water	<input type="checkbox"/>	The renewal of existing diversion consent number: <u>N/A</u>
<input type="checkbox"/>	To dam water	<input type="checkbox"/>	The renewal of existing dam consent number: _____

Please note that if the diversion or dam requires the alteration of the bed or banks of a lake or watercourse, a Land Use Consent is also likely to be required. Please refer to the relevant Part B Form.

This form is not for water takes. Please refer to the relevant Part B Form to take surface water or groundwater.

2 For what purpose(s) will the water be dammed or diverted?

*Refer attached resource consent application and AEE.*

3 What type of water body do you intend to dam or divert?

<input type="checkbox"/> River/stream	<input type="checkbox"/> Modified watercourse	<input type="checkbox"/> Lake	<u>Wetland</u>
---------------------------------------	---	-------------------------------	----------------

4 What is the name of the water body of the proposed dam or diversion? If the water body is unnamed then please note this and state which water body it flows into.

N/A

5 What are the GPS co-ordinates of the point(s) you propose to dam/divert water?

*Refer attached resource consent application*

Point 1: NZTM 2000 \_\_\_\_\_ E \_\_\_\_\_ N

Point 2: NZTM 2000 \_\_\_\_\_ E \_\_\_\_\_ N

6 Please describe your proposed method to dam or divert water:

Refer to attached resource consent application

7 If you answered *river, stream, or modified watercourse* above, please answer the following:

- (a) What is the average channel width nearest to the proposed dam/diversion? \_\_\_\_\_ metres
- (b) What is the channel depth nearest to the proposed dam/diversion? N/A metres
- (c) What is the minimum flow – determined as per Appendix K of the proposed Southland Water and Land Plan? \_\_\_\_\_ l/sec

8 If you answered *lake* above, please answer the following:

- (a) What is the surface area of the lake? \_\_\_\_\_ N/A
- (b) What is the average depth of the lake? \_\_\_\_\_ N/A
- (c) What is the main source of water that fills the lake?

Rainfall

Groundwater/springs

Streams/ivers

9 Does your proposed damming or diversion of water have any associated wastewater discharges?  
If yes, please describe below:

Yes

No

Please note that a discharge into the environment may require a resource consent application to be made specifically for the discharge (please refer to the relevant Part B form).

**Existing Environment**

10 Are any of the following features found within the existing environment of the proposed activity? Describe these features in the space below, along with details of the assessment undertaken to determine the presence of these features.

- (a) Signs of instream life (e.g. fish, eels, bullies, crayfish, native birds, frogs)?
- (b) Areas where food is gathered from a water body (e.g. watercress, eels, wildfowl)?
- (c) Wetlands, wildlife habitats or bird nesting habitats (e.g. swamp areas)?
- (d) Other activities occurring in the area (e.g. commercial activity, fishing, swimming, boating)?
- (e) Areas of particular aesthetic, cultural, heritage or scientific value (e.g. archaeological sites)?
- (f) Waste discharges, water takes and/or monitoring sites?

Yes	No
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Refer attached resource consent application



Please also include a map or aerial photograph showing the following details:

- the location(s) of the proposed activities
- the location of any structures
- the location of any existing points of take for other water users
- the total property area boundary
- distances to any discharge activities
- other surface water bodies nearby (including wetlands) and the distance to them

***Assessment of Effects***

11 Will the damming or diversion have any effects on the following:

- (a) Water quality, including temperature
- (b) Water availability and reliability to other users
- (c) River and stream flows
- (d) Water levels in any other water body (including wetlands)

Yes	No
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

For those answered **No** above, please describe why there will be no effect. For those answered **Yes**, please describe how these effects may occur.

Refer to attached resource consent application

12 Based on the assessment of minimum flow, as per Appendix K of the proposed Southland Water and Land Plan (pSWLP), please assess the following:

- (a) In situations where the total volume of surface water allocation is between 10 and 30 percent of the Q95 at any downstream point in the catchment as determined by the Southland Regional Council, please include an assessment of effects using *Method 1 - Assessment using Generalised Habitat Models*, as per Appendix K of the pSWLP; or
- (b) In situations where the total volume of surface water allocation will breach 30 percent of the Q95 at any downstream point in the catchment as determined by the Southland Regional Council, please include an assessment of effects using *Method 2 - Assessment using Instream Habitat Flow Incremental Methodology*, as per Appendix K of the pSWLP.

N/A

- 13 How will the proposed activity affect the overall environment in the short term? For example, how does the establishment of your proposed activity (including any construction and watercourse or waterbody disturbance) affect the environment, particularly in terms of land disturbance and waterbody behaviour (i.e. where does any disturbed water and soil end up?)

Refer to attached resource consent application

- 14 Please consider the long term effects that your proposed diversion or damming of water may have on the surrounding environment.

Refer to attached resource consent application

- 15 Are there any structures near to the proposed activity? If yes, will the proposed activity have any effect on these structures? Please provide specific details including the type of structure, owner of the structure, distance from the proposed activity, and what effects the proposed activity will have on the stability/function of the structure.

Refer to attached resource consent application

- 16 Pursuant to Schedule 4 of the Resource Management Act, 1991, there are a number of matters that must be addressed by an assessment of environmental effects. Please discuss what effects the proposed activity will have on the following:

- (a) any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects

Refer to attached resource consent application and ABB.



(b) any physical effect on the locality, including any landscape and visual effects

Refer to attached RCA.

(c) any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity

See attached RCA.

(d) any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations

See attached RCA.

(e) any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants

See attached RCA.

- (f) any risk to the neighbourhood, the wider community, or the environment through natural hazards or the use of hazardous substances or hazardous installations

Refer attached RCA.

- 17 Please include a description of the monitoring or mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help avoid, reduce, remedy or mitigate the actual or potential effects on environmental features and values.

Refer attached RCA.

- 18 Please include a description of any possible alternative locations or methods for undertaking the activity and why these alternatives have not been selected.

Refer attached RCA

- 19 Please include evidence of any consultation undertaken for this application. This may include (but not be limited to) consultation with adjoining landowners, other consent holders in the immediate area, iwi (e.g. Te Rūnanga O Ngāi Tahu, Te Ao Marama Inc.), government departments/ministries (e.g. DOC), territorial authorities and recreational associations.

Refer to attached RCA

Please note that in accordance with Schedule 4 of the RMA, you may also be required to provide an assessment of whether or not the proposed activity is contrary to any of the relevant provisions of the following documents:

- (a) Regional Policy Statement for Southland, 1997*
- (b) Proposed Southland Regional Policy Statement, 2012 (and any proposed/ subsequent versions)*
- (c) Regional Water Plan for Southland, 2010*
- (d) Proposed Southland Water and Land Plan, 2016 (and any proposed/ subsequent versions)*
- (e) National Policy Statement for Freshwater Management, 2014*
- (f) National Environmental Standard for Sources of Human Drinking Water, 2007*

Staff are able to advise whether this is required, as it is dependant on the location, scale and complexity of your proposal. We invite you to come in for a pre-application meeting with Environment Southland consents staff to discuss this.

**END OF FORM**



WSP | OPUS

[www.wsp-opus.co.nz](http://www.wsp-opus.co.nz)





14 November 2019

Luke McSoriley  
Opus International Consultants Ltd  
PO Box 647  
Invercargill

[luke.mcsoriley@wsp.com](mailto:luke.mcsoriley@wsp.com)

Dear Luke,

**Request For Approval: S95e Resource Management Act 1991 To Install A Third Culvert And Approve The Installation Of The First Two Culverts.**

I have considered your request for approval in terms of s95E of the RMA and am pleased to advise that I grant my approval as an affected party.

My approval is granted on the basis that the proposal is as described, is for the purposes described, and will have the effects on the Department of Conservation (Department)'s interests as described in the application, hydrology report and indicated on the maps received by the Department on 8 October 2019.

This approval is limited to the likely adverse effects of the proposal on the Department's interests and should not be construed as approval to effects on the environment generally.

This approval is specific to the above application and is for the purposes of s95E of the RMA only. It is not indicative of any associated concession or other statutory approval which may be required from the Department regarding this proposal.

This approval will be rendered null and void if the proposal to which it refers is changed between the date of this approval and its consideration by the consent authority without referral back to me for my further assessment.

Please be advised that the original of this letter has been sent to the consent authority for their records.

If you have any questions regarding this approval, please contact Anna Derks on 027 241 1878 or at [aderks@doc.govt.nz](mailto:aderks@doc.govt.nz).

Yours sincerely,

**Nedra Burns**  
Operations Manager  
Te Anau District Office  
Pursuant to delegated authority.

cc. Manager Consents, Environment Southland, Private Bag 90116, Invercargill, 9840



Cnr North Road and Price Street  
 (Private Bag 90116)  
 Invercargill  
 Telephone (03) 211 5115  
 Fax No. (03) 211 5252  
 Southland Freephone No. 0800 76 88 45

**WRITTEN APPROVAL FORM**

To: Environment Southland  
 Private Bag 90116  
 Invercargill 9840

**Affected person's written approval to an activity that is the subject of a resource consent application**

**To be completed by the person requesting approval**

Applicant: Fiordland Trails Trsut

Application Number: \_\_\_\_\_ Officer in Charge: \_\_\_\_\_

Type of Resource Consent: Land Use Consent

Proposed Activity(ies): The diversion of surface water and groundwater, 25 years. Wetland modification.

Location: Near Manapouri.

**To be completed by the person giving approval:**

Name: Stevie-Rae Blair

and/or Organisation: Te Ao Marama Inc.

Street/Road Address: 408 Tramway Road Invercargill

\*I am the owner/occupier of the following property and have authority to sign on behalf of all other owners/occupiers of the property: \_\_\_\_\_ \*Delete if not applicable

I/we have studied the application for resource consent and give my/our written approval to the proposed activity/activities.

In signing this written approval, I/we understand that the consent authority must decide that I/we am/are no longer an affected person(s), and the consent authority must not have regard to any adverse effects on me/us.

Stevie-Rae Blair    16/ 12 /2019    \_\_\_\_\_    \_\_\_\_\_  
 (Signature)                      (Date)                      (Signature)                      (Date)

Notes: If you do not understand this form and/or any details regarding the application for resource consent, then you should not provide your written approval.

Environment Southland is the brand name of the Southland Regional Council



## Guidelines for Affected Parties

### Why has your written approval been requested?

If you have been asked to sign this form, it will be because someone is proposing an activity that requires a resource consent and you have been identified as an affected party. You may have been deemed an affected party simply because you are a neighbour.

### What should you do?

1. Study the application for resource consent for the proposed activities. This should help you understand any potential effects.
2. If you are happy with the proposal and wish to give your approval, you may do so by signing the written approval form.

Any questions regarding the proposed activity(ies) should be addressed to the applicant in the first instance. Discussing the proposal may assist with resolving any issues of concern. If you continue to be concerned with the proposal, you do not have to sign the form, however it is important that you let Environment Southland and the applicant know you will not be giving your approval and why.

If the application is notified, your written approval does not constitute a submission as required under Section 96 of the Resource Management Act 1991.

### Note:

- By signing the written approval form you still retain the right to contact Environment Southland or lodge a complaint if you become concerned that the applicant is not complying with the requirements of their resource consent.
- This approval may be withdrawn in writing up to the time that the application is considered and determined.

For further assistance contact Environment Southland's Consents Team on 03 211 5115 or 0800 76 88 45



## TE AO MARAMA INC.

# TAX INVOICE

Fiordland Trails Trust  
Attention: Luke McSoriley  
C/- Opus  
65 Arena Avenue  
Invercargill 9810

Invoice Date  
18 Dec 2019

Invoice Number  
INV-5393

GST Number  
066-945-944

Te Ao Marama Incorporated  
PO BOX 7078  
South Invercargill  
Invercargill 9844  
P: 03 931 1242  
E: office@tami.maori.nz

Description	Quantity	Unit Price	Amount NZD
Consult runanga and process approval - 5393 - The diversion of surface water and groundwater, 25 years. Wetland modification. Near Manapouri.	1.00	70.00	70.00
Stationery, photocopying, phone and toll/mobile calls (where applicable)	1.00	10.00	10.00
		Subtotal	80.00
		TOTAL GST 15%	12.00
		<b>TOTAL NZD</b>	<b>92.00</b>

### Due Date: 20 Jan 2020

Direct Credit Account: 02-0924-0495373-000  
Please include Invoice No. in Reference Field  
Please pay by the 20th of the Month following



## PAYMENT ADVICE

To: Te Ao Marama Incorporated  
PO BOX 7078  
South Invercargill  
Invercargill 9844  
P: 03 931 1242  
E: office@tami.maori.nz

Customer: Fiordland Trails Trust  
Invoice Number: INV-5393  
Amount Due: 92.00  
Due Date: 20 Jan 2020  
Amount Enclosed:

Enter the amount you are paying above

