

BEFORE THE INDEPENDENT COMMISSIONERS

**APPOINTED BY SOUTHLAND REGIONAL COUNCIL AND GORE DISTRICT
COUNCIL**

Under The Resource Management Act 1991

And

In the matter of Resource consent applications by Waikaka Gold Mines
Limited to establish and operate a gold mining and
processing operation, with supporting ancillary activities,
at 972 Waikaka Road, Chatton North, Southland

Application No. Waikaka Gold Mines Limited: APP-20242608

**STATEMENT OF EVIDENCE OF JANE MACLEOD
(PLANNING)**

ON BEHALF OF THE DIRECTOR-GENERAL OF CONSERVATION

Dated 25 November 2025

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Introduction

1. My name is Jane Elliot Macleod.
2. I hold the qualifications of MSc Environmental Studies from the University of Strathclyde, UK (2006) and BA (Hons) History from the University of Manchester, UK (2000).
3. I am an associate member of the New Zealand Planning Institute.
4. I have been employed by the Department of Conservation (DOC) as a Senior Resource Management Planner since January 2025.
5. Prior to this I had seventeen years of experience working in resource management for the Dunedin City Council, including fourteen years as a Policy Planner/ Senior Policy Planner and three years as a Team Leader – Planning. I have experience in: District Plan drafting and section 32 reporting; section 42A reporting for District Plan changes and involvement in Council plan change hearings; and involvement in District Plan appeals and Environment Court mediation.
6. My experience at DOC includes providing input on planning consents and Council plans from a national perspective.

Code of Conduct

7. I confirm that I have read the code of conduct for expert witnesses as contained in clause 9 of the Environment Court's Practice Note 2023 (the Code). I have complied with the Code when preparing my written statement of evidence and will do so when I give verbal evidence before the Independent Commissioners. Although I note this is a Council hearing, I agree to comply with this code.
8. For the avoidance of doubt, in providing this evidence as an expert witness in accordance with the Code, I acknowledge that I have an overriding duty to impartially assist the Panel on matters within my area of expertise. The views expressed are my own expert views, and I do not speak on the Director-General of Conservation (DGC)'s behalf.
9. The data, information, facts and assumptions I have considered in forming my opinions are set out in my evidence to follow. The reasons for the opinions expressed are also set out in the evidence to follow. This includes, where relevant:
 - a. why other alternative interpretations of data are not supported;

- b. any qualification, if my evidence may be incomplete or inaccurate without such qualification;
 - c. any knowledge gaps, and the potential implication of the knowledge gap;
 - d. if my opinion is not firm or concluded because of insufficient research or date or for any other reason;
 - e. an assessment of the level of confidence and the likelihood of any outcomes specified in my conclusion.
10. Unless I state otherwise, this evidence is within my sphere of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Scope of evidence

11. I have been asked to provide planning evidence in relation to the DGC's submission on the proposal by Waikaka Gold Mines Limited to establish and operate a gold mining and processing operation, with supporting ancillary activities, at 972 Waikaka Road, Chatton North, Southland.
12. The proposal involves applications for resource consent to both Environment Southland and Gore District Council. The DGC's submission related only to the application to Environment Southland, and my evidence therefore focuses on the effects of the activities covered by that application.
13. I generally agree with the analysis of the Environment Southland s42A report author, Ms Smith. For the sake of brevity, I adopt her analysis except where otherwise stated in my evidence.
14. My evidence addresses the following issues:
- a. A summary of the actual and potential environmental effects of relevance to the DGC's submission
 - b. My statutory assessment of the application
 - c. The DGC's proposed condition amendments.
15. My evidence is divided into the following parts:
- a. Application summary
 - b. Activity status
 - c. The DGC's submission

- d. Assessment of effects
- e. Statutory planning assessment
- f. Other matters: Southland Murihiku Conservation Management Strategy
- g. Conditions of consent
- h. Section 104D gateway test
- i. Conclusion

Material Considered

- 16. In preparing my evidence, I have read and rely on the evidence of Ms Jane Bowen (Technical Advisor Freshwater) for the DGC, dated 24 November 2025.
- 17. I have read the following documents:
 - a. The consent application documents and further information responses, including:
 - i. *Application for Resource Consent to Environment Southland and Gore District Council*, prepared by Town Planning Group (NZ) Ltd., dated 26 August 2024
 - ii. *Waikaka Goldmines Ltd Aquatic Ecology Survey*, prepared by Ross Dungey Consulting Ltd, dated February 2021
 - iii. *Waikaia Gold, Revised Diversion Plan Waikaka Stream Mine: Comments on the effects of this revision on aquatic habitat*, prepared by Ross Dungey, dated August 2024
 - iv. *Waikaia Gold, Waikaka Stream Mine: Additional information relating to specific items identified by Environment Southland*, prepared by Ross Dungey, dated April 2025
 - v. *Waikaka Gold – Response to Ecology Review Questions*, prepared by Ross Dungey, dated May 2025.
 - b. The technical reviews of the consent application documents commissioned by Environment Southland.
 - c. The s42A report prepared by Alexandra Smith, circulated on 13 November 2025, and relevant evidence from other experts appended to this report, including:
 - i. Evidence of Mark Hamer, *Impacts on Freshwater Ecology*, dated 5 November 2025

- ii. Evidence of Harry Stocker, River Engineering and Flood Hazard, undated
 - iii. Evidence of Alexandra Badenhop, Groundwater and Acid Mine Drainage, dated 13 November 2025.
- d. Evidence of the applicant's witnesses, including:
 - i. Evidence of Anita Collie – Planning, dated 19 November 2025
 - ii. Evidence of Ross Dungey – Ecology and Water Quality, dated 19 November 2025
 - iii. Evidence of Paul Weber – Acid and Metalliferous Drainage Effects, dated 19 November 2025
 - iv. Evidence of Warren Batt – Geology, dated 18 November 2025.
- 18. I undertook a site visit on 11 November 2025, with Ms Jane Bowen (DOC Technical Advisor Freshwater) and Mr Noel Becker (Waikaka Gold Ltd Technical Manager).
- 19. I have also attended two pre-hearing meetings with the applicant's representatives on 22 September 2025 and 30 October 2025, to discuss the proposal and potential approaches to mitigate adverse effects. My evidence is informed by those discussions.
- 20. I record my appreciation for the proactive approach to consultation with DOC that has been taken by the applicant.

Executive Summary

- 21. Resource consent is sought to establish and operate a gold mining and processing operation, with supporting ancillary activities, at 972 Waikaka Road, Chatton North, Southland. A 20-year duration is sought.
- 22. My evidence focuses on the effects of relevance to the DGC's submission on the application, including effects on freshwater ecology, effects on fish passage, and effects on surface water quality.
- 23. Key effects of concern arise from the temporary diversion of the Waikaka Stream and Shepherd's Creek, and disturbance of drainage ditches and ponds elsewhere on the site. These natural and artificial water bodies provide habitat for Gollum galaxias (threatened – nationally vulnerable), Longfin eel (at risk-declining), Shortfin eel and Upland bully, all of which are taonga species.

24. Although a range of measures has been proposed to avoid, minimise and remedy effects, there is general agreement that more than minor residual adverse effects will remain. If proposed rehabilitation is not successful, these residual effects will increase in magnitude, potentially significantly. No firm proposals have yet been provided to offset or compensate for these effects.
25. There are information gaps in relation to certain ecological values and effects, including in relation to: the values of Shepherd's Creek; the availability of suitable alternative habitats for Gollums living in the drainage ditches that will be disturbed; the connections between natural and artificial water bodies on the site, how they are proposed to be connected following completion of mining activity, and how indigenous species, including Gollums, use this interconnected habitat.
26. Insufficient detail has been provided on the key mitigation measure proposed, which is a remediation measure – rehabilitation of the diverted stream and creek. As a result, there is significant disagreement in the ecological evidence regarding whether this measure is feasible and will be successful.
27. Given the above, I consider that key statutory policies are not met.
28. However, I consider that there is potential for effects to be appropriately managed and for the activity not to be contrary to key statutory policies, if additional actions are undertaken by the applicant. These actions include provision of: additional information to fill identified gaps; a draft stream diversion management plan that clearly demonstrates that successful rehabilitation is feasible; and proposals for appropriate offsetting and/or compensation measures to address residual effects.

Application Summary

29. Waikaka Gold Mines Limited ('the applicant') seeks resource consents from both Environment Southland and Gore District Council to establish and operate a gold mining and processing operation, with supporting ancillary activities, at 972 Waikaka Road, Chatton North, Southland.
30. The total mining area is c. 85ha, and it is proposed that this will be mined over a period of seven to eight years, although a consent term of 20 years is sought with no limit on the duration or timing of mining within that term. The area of the application site is c. 95ha.
31. The proposed activity is described further below, in relation to effects on aquatic ecology.

Activity Status

32. The application identifies the various rules triggered in the proposed Southland Water and Land Plan.¹ Ms Smith generally concurs with this rule identification in the S42A report.² I also agree with the identification of the applicable rules in these assessments, and I agree with their respective conclusions that, overall, the proposal is to be bundled for assessment as a Non-complying Activity.

The DGC's Submission

33. The DGC lodged a submission on the application for consents from Environment Southland. The submission opposed the application in its notified form, and raised concerns in relation to:
- a. Effects on surface water and groundwater quality
 - b. Effects on freshwater species and habitat
 - c. Effects on fish passage
 - d. The requested 20-year consent term
 - e. The need for DOC permission to access public conservation land
34. The concerns raised in the submission are addressed in more detail in my evidence.

Assessment of Effects

Effects on freshwater ecology

35. The proposed development will have a range of effects on freshwater habitat at the site, as follows:
- a. The temporary, staged diversion, followed by the reinstatement and rehabilitation, of four sections of the Waikaka Stream (2350m in total); and of one 590m stretch of Shepherd's Creek, with each diversion in place for one to two years.
 - b. The infilling and realignment of drainage ditches on the site, including partial infilling of the Western Drain and the Middle Drain.
 - c. Infilling of ponds on the site that were created by past mining activity.

¹ Application for Resource Consent to Environment Southland and Gore District Council (Town Planning Group (NZ) Ltd., August 2024), section 4.2.

² Smith (2025), section 2.3.

Waikaka Stream and Shepherd's Creek

36. Mr Dungey and Mr Hamer agree that the ecological values of the Waikaka Stream are very high, based on the presence of a range of fish species, including Gollum galaxias, Longfin eel, Shortfin eel, Upland bully, Brown trout and Perch.³ Gollum galaxias is a threatened species (nationally vulnerable). An assessment of the ecological values of Shepherd's Creek was not carried out by Mr Dungey, but Mr Hamer suggests that the ecological values of the creek are high, based on fish species present or likely to be present (including Gollum galaxias, Longfin eel and Brown trout), and Ms Bowen agrees with this view.⁴
37. Mr Dungey assesses that the effects of the proposed river diversions would be very high or high, but that the overall impact would be "low" following well-designed mitigation.⁵ The key measure proposed in the application to manage the impact is the progressive rehabilitation of each diverted stretch of water, as the mining activity progresses around the site.
38. The likely success of the proposed rehabilitation of the water bodies, and therefore the potential for rehabilitation to reduce impacts on aquatic ecological values to "low", is a key area of disagreement between the ecologists.
39. Mr Hamer and Ms Bowen raise two main concerns in relation to the rehabilitation proposal.⁶ Firstly, recreation of rivers and streams with high ecological values is complex and challenging. Literature cited in their evidence indicates that a range of difficulties have arisen in other rehabilitation projects in New Zealand and elsewhere, resulting in significant loss of ecological function. Secondly, the applicant has not yet provided a sufficiently detailed plan for rehabilitation to provide assurance that the proposal is feasible. Ms Bowen notes that, in her experience, more planning and design (preferably including modelling) is required for successful restoration, even for smaller-scale restoration projects.
40. In addition, while Ms Bowen's evidence supports the introduction, in the conditions attached to Ms Collie's evidence, of measures to enhance habitat in the proposed temporary diversion channels, she has concerns with the potential for high temperatures in the channels, given that no shading measures are

³ Dungey (May 2025), page 3; Hamer (2025), para 21.

⁴ Hamer (2025), paragraph 12; Bowen (2025), paragraph 23.

⁵ Dungey (May 2025), page 3.

⁶ Hamer (2025), paragraphs 21, 33 and 34; Bowen (2025), paragraphs 25 and 34-39.

proposed.⁷ Ms Bowen notes that, during low flow conditions in summer, water temperatures that have been recorded on the site are already “exceptionally high and of a level where any further increase in temperature may be detrimental to freshwater species at site”.⁸

Drainage ditches

41. The drainage ditches on the site include the Western Drain and the Middle Drain, and several smaller ditches that are mostly dry. Although Mr Dungey notes that the ditches rate as “high” value according to EIANZ guidelines due to the presence of galaxiids and longfin eels assesses, in his view they provide low quality habitat.⁹ Both Mr Hamer and Ms Bowen disagree with this view, given that the ditches provide important, slow flowing habitat that is required for both adult and juvenile Gollum galaxias.¹⁰ Ms Bowen notes that drainage ditches provide refuge and habitat for freshwater species, including threatened species, where natural habitats such as wetlands have been lost.¹¹
42. The proposals for infilling and realignment of ditches are depicted in two plans that were provided to DOC by the applicant during pre-hearing meetings:
 - drainage plan WK0480 “Pre-mining drainage” (attached to this evidence as Appendix 1), and
 - drainage plan WK0564 “Post Mining Schematic Drainage Pattern”.¹²
43. Together, these plans indicate that a long stretch of the Western Drain is proposed to be infilled and replaced with a straight drainage ditch adjacent to Waikaka Road. The Middle Drain would also be infilled where it intersects with the area to be mined. The post-mining drainage plan shows a number of new ditches including one running approximately parallel to the realigned Western Drain, and connecting with the L&M pond, and several shorter drains around the edges of the mined area. Ms Collie’s evidence indicates that the total length of drains to be infilled is 5059m, and the total length of new drains would be 5076m.¹³

⁷ Bowen (2025), paragraph 32c; Collie (2025), Attachment B Proposed Conditions of Consent, condition 32.

⁸ Bowen (2025), paragraph 29.

⁹ Dungey (May 2025), page 2; Dungey (November 2025), paragraph 36.

¹⁰ Hamer (2025), para 14; Bowen (2025), para 43.

¹¹ Bowen (2025), paragraph 41.

¹² WK0564 (post-mining drainage plan) can be viewed on p18 of this application document: [01 Application Waikaka Gold Mines Limited.pdf](#).

¹³ Collie (2025), paragraph 99.

44. Replacement ditches would be devoid of habitat features until vegetation reestablishes. However, it is proposed that Gollums would be salvaged from the ditches and translocated “to existing ditch habitat or to a reconstructed ditch which has had time to develop to similar quality of habitat”.¹⁴
45. Both Mr Hamer and Ms Bowen raise concerns with the proposal to move Gollums to reconstructed ditches. Newly created ditches would not provide suitable habitat for the salvaged threatened fish. No habitat enhancement is proposed for the new ditches, and without management, habitat will take “years” to establish.¹⁵ In response to Mr Hamer’s evidence, Mr Dungey clarifies that fish “will not be released into a newly excavated ditch which clearly has not capacity to support translocated fish”.¹⁶ However, Ms Bowen has concerns that there is not sufficient suitable existing ditch habitat on site for the translocation of the Gollums in the ditches proposed to be disturbed.¹⁷
46. In addition, Ms Bowen notes that there is a lack of clear information on how the ditches currently connect to ponds and natural water bodies in the site, and how they are proposed to be connected following completion of mining activity. Connections are relevant to the quality of habitat for Gollums and other species, as they can result in ecological risks (from predation) and well as benefits.¹⁸

Ponds

47. Finally, three ponds located within the mining footprint are proposed to be infilled.¹⁹ These are Pond 2, Pond 6 and Pond 7. I understand from conversations with the applicant’s representatives that there is also a possibility that a fourth pond, Pond 8, may be infilled, as it is within a 30m buffer from the mined area. The applicant does not propose to reinstate infilled ponds in their current locations following the mining activity, but indicates that there is likely to be a terminal pond at the end of the mining project; if so, its margins would be planted with native species.²⁰ Mr Dungey recommends that, if this pond is established, it should also have a variable depth profile, and “a similar area” (I understand this to mean similar to the combined area of ponds 2, 6 and 7, though this is not directly stated).²¹ He also states that “There are many local

¹⁴ Dungey (November 2025), paragraph 51

¹⁵ Hamer (2025), paragraph 25; Bowen (2025), paragraph 47.

¹⁶ Dungey (November 2025), paragraph 121

¹⁷ Bowen (November 2025), paragraph 48.

¹⁸ Bowen (November 2025), paragraphs 51, 52, 53c.

¹⁹ “02C - Further information response - WGML Plans WK0594 & WK0596” see map on p2 of this document: [02C - Further information response - WGML Plans WK0594 & WK0596](#).

²⁰ Collie (2025), paragraphs 110 to 111

²¹ Dungey (2025), paragraph 47.

ponds that would be suitable for the relocation of eels within the ponds 2, 6 and 7 before they are impacted by mining”.²²

48. Except for Pond 8 where no fish have been found, Shortfin eel have been found in all affected ponds, and Pond 6 also contains Longfin eel. Mr Dungey notes that “Pond 6 supports both longfin and shortfin species of eel and has the best water quality of any of the ponds. There are galaxiids present in parts of the Pond 6 outlet stream.”²³ Ms Bowen suggests that eDNA may be useful to confirm presence of Gollums in other ponds.²⁴
49. Ms Bowen’s evidence is that while these ponds may represent only limited habitat when considered individually, the loss of this habitat should be considered in the context of the broader network of water bodies, which may be interconnected, and the species that use them. Therefore, in order to establish the magnitude of the effects of infilling the ponds, further information is needed on the connections of the ponds with streams, creeks and ditches, and how species use this habitat over time. Further investigation of the use of the ponds by Gollums is also recommended, noting the relatively recent discovery of the species in drains connects to Pond 6 (this discovery was made in November 2025; earlier surveys had not found Gollums in this location).²⁵

Effects on fish passage

50. The DGC’s submission noted one or two stream crossings were proposed to be created within Waikaka Stream and/or Shepherd’s Creek and raised concerns about potential impacts on fish passage.
51. As noted in Ms Bowen’s evidence, the applicant has indicated in pre-hearing meetings that a bridge would be used for stream crossings. This would be preferable to alternatives (e.g. a ford or culvert), both from the point of view of fish passage, and in order to avoid potential sediment mobilisation from repeated river crossings by heavy vehicles.²⁶
52. If a temporary bridge is used, then the regulations for culverts and fords in the NES for Freshwater, mentioned in the DGC’s submission, will not apply.
53. The DGC’s submission also noted the requirements of section 43 of the Freshwater Fisheries Regulations 1983 in relation to dams and diversion

²² Dungey (2025), paragraph 49.

²³ Dungey (November 2025), paragraph 32.

²⁴ Bowen (2025), paragraph 55.

²⁵ Bowen (2025), paragraphs 57, 59, 60a&b.

²⁶ Bowen (2025), paragraph 61.

structures. However, under the regulations a “diversion structure” is “any structure designed to divert or abstract natural water from its natural channel or bed whether permanent or temporary”. My understanding is that structures of this kind are not proposed as part of the activity, and therefore these regulations do not apply.

Effects on surface water quality

54. The DGC’s submission covered matters relating to sedimentation, acid mine drainage, and effects on water quality during flood events.

Sedimentation

55. The DGC’s submission raised concerns regarding the potential for excess sediment to reduce freshwater biodiversity and ecosystem health by: infilling and altering habitats; enabling the establishment of nuisance weeds; creating anoxic conditions; and smothering the feeding and gill structures of invertebrates and fish.
56. Ms Bowen’s evidence focuses on concerns with sedimentation during the establishment of the temporary diversion channels. She notes that the applicant proposes a staged approach to releasing water into the diversion channels to mitigate this (as set out in Mr Dungey’s evidence²⁷), but that there is still likely to be significant sediment in the first flush, and ongoing issues with sediment and erosion through the new channel as it stabilises.²⁸
57. Ms Bowen notes that she is unaware of further mitigation measures that could be used to reduce sedimentation; therefore, there may be a significant residual adverse effect from sedimentation of water and resulting adverse ecological effects.

Acid mine drainage

58. The DGC’s submission raised concerns about the potential for acid mine drainage (AMD) to cause adverse effects on fish through acute and chronic toxicity, resulting in mortality, avoidance behaviour, and impairments to feeding, migration, predator avoidance and reproduction.
59. I understand that the purpose of this aspect of the submission was to ensure that the applicant addressed this matter to the satisfaction of Environment Southland; DOC does not have technical expertise in this area. I note that Environment Southland has engaged Ms Alexandra Badenhop to provide

²⁷ Dungey (November 2025), paragraphs 37 and 38

²⁸ Bowen (2025), paragraph 31.

evidence on potential effects associated with AMD. Ms Smith has made recommendations in the s42A report on the basis of Ms Badenhop's evidence, indicating that Environment Southland considers that AMD effects can be appropriately managed, provided that the recommendations set out in the report by Mine Waste Management Ltd (2022), which formed part of the original application, are put into practice.²⁹ For the applicant, Mr Paul Weber of Mine Waste Management Ltd has responded to the s42A recommendations in his evidence, and also supports the need for an acid mine drainage management plan.³⁰ This is covered by condition 67 in the conditions proposed in Ms Collie's evidence.

60. Based on this evidence, I am comfortable that this effect can be appropriately managed.

Flooding

61. Finally, the DGC's submission raised a concern about the potential for water to flow through the mine during high flow/flood events, resulting in untreated water contaminating the wider environment.
62. The applicant's representatives have clarified during pre-hearing meetings with DOC that any floodwaters in the pit will be pumped out to the settlement ponds, and that the mine pit is too big for floodwaters to fill it up and overtop in an uncontrolled fashion.
63. This aspect of the DGC's submission has also been addressed by Mr Harry Stocker, in his evidence on river engineering and flood hazard, for Environment Southland. Mr Stocker comments that:³¹

The mine plan provides that floods up to 20-year ARI [Annual Recurrence Interval] will be confined within the channel and therefore will not come into contact with the mining area. While floods larger than 20-year ARI may inundate mining areas, such major floods will likely be heavily silt-laden anyway and any sediment contribution from the mining area is likely to be of minor proportion.

Nevertheless, this matter deserves formal treatment, with attention also needed to address any potential contaminants other than sediment.

²⁹ Smith (2025), paragraph 3.3.30.

³⁰ Weber (2025), paragraph 59.

³¹ Stocker (2025), paragraphs 15 to 17.

The proposed Conditions of the various consents include provisions to address contaminant management, with the required Environmental Management Plan (EMP) and TDMPs [Temporary Diversion Management Plans] to demonstrate how compliance will be achieved. The detailed development of these Plans is proposed to be developed and provided post-consent, and subject to ES certification. Further control will be provided via the proposed Erosion and Sediment Control Plan (ESCP) to be prepared by a suitably qualified and experienced professional and provided to Gore District Council.

64. Based on this evidence, I am comfortable that this effect can be appropriately managed.

Statutory Planning Assessment

65. Section 104 (1) of the Resource Management Act (RMA) sets out the matters to which a consent authority must have regard, subject to Part 2 of the Act, when considering an application for resource consent. These are identified in the original application documents, and by Ms Smith in the section 42A report, and expanded on by Ms Collie in her hearing evidence. Rather than go through each relevant planning instrument and provision individually, I have focussed on any areas of disagreement with Ms Collie or Ms Smith, and/or any comments I would add to their assessments.

National Policy Statement for Freshwater Management 2020

66. While I am generally in agreement with Ms Smith in her assessment of the proposal against the NPSFM in the S42A report, I consider it is worth identifying the policies that are particularly relevant to the concerns raised in the DGC's submission and Ms Bowen's evidence, which are as follows:

Policy 7: The loss of river extent and values is avoided to the extent practicable.

Policy 9: The habitats of indigenous freshwater species are protected.

67. In relation to Policy 7, I note that clause 3.24(1) of the NPSFM requires regional councils to insert a policy (with specified wording) into their plans to manage effects on river extent and values. This policy has been incorporated into the proposed Southland Water and Land Plan as Policy 28A, which is discussed below.
68. In relation to Policy 9, as set out in Ms Bowen's evidence, the proposal would remove existing habitats of indigenous freshwater species from the site, including habitats within the Waikaka Stream, Shepherd's Creek, drainage

ditches and ponds. Replacement and rehabilitation of most of this habitat is proposed, but there is disagreement in the ecologists' evidence regarding how successful this rehabilitation would be, and the extent to which similar or improved habitats would be recreated when the mining and rehabilitation is complete.

69. In addition, I note Ms Bowen's concerns, discussed above, that the proposed measures to manage sedimentation during the initial use of the temporary diversion channels are not sufficient, and that there may be a significant adverse effect from sedimentation of the rivers, with resulting adverse effects on freshwater biodiversity and ecosystem health.
70. There is room to improve rehabilitation measures and undertake additional offsetting and/or compensation measures to create positive effects (see discussion below in relation to Policy 28A of the proposed Southland Water and Land Plan); however, even if this was done, the existing habitat on the site would not be "protected". Therefore, I consider that the proposal is inconsistent with NPSFM Policy 9.

Southland Regional Policy Statement 2017

71. In my opinion, the following SRPS policy is the most relevant to the concerns raised in the DGC's submission and Ms Bowen's evidence:

Policy BIO.4 – Maintain indigenous biodiversity

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.

72. I note that Policy BRL1 – Managing effects on values and physical processes is also relevant to the application, in that it requires regional plans to include policies to manage the effects of activities in the beds of lakes and rivers. This policy appears to have been given effect to via Policy 28 in the proposed Southland Water and Land Plan, which is discussed below.
73. In relation to Policy BIO.4 – Maintain indigenous biodiversity, I note that:
- a. The activity would reduce the extent of the habitat of indigenous fauna (clause i), including the habitat of a threatened species, the Gollum galaxias (clause iv). From the time of the first diversion to the point at which the rehabilitation of the Waikaka Stream and Shepherd’s Creek was successfully completed, there would be a reduction in the extent and quality of the habitat of indigenous fauna in these water bodies. There would also be a loss of habitat of indigenous fauna in the drainage ditches and ponds. This may be remedied over time, at least in part, by the establishment of a new drainage ditches, and a terminal pond with riparian planting. However, limited habitat rehabilitation measures are proposed for these artificial water bodies and it is not currently certain that the pond will be established.
 - b. The activity would also fragment and disrupt linkages between habitats of indigenous fauna across the stream, creek, drainage ditches and ponds (clauses i and ii).
 - c. Unless sedimentation during the use of the temporary diversion channels can be appropriately managed, this risks damage to the habitats of indigenous fauna (clause iii).
74. The policy does not require that these effects be avoided; the requirement is that “a healthy functioning state” is achieved in “a full range of indigenous habitats and ecosystems”, and that “viable and diverse populations of native species are maintained”. Therefore, it is possible that this policy could be achieved, if the adverse effects were addressed via improved rehabilitation measures, and if offsetting and/or compensation measures were undertaken to create positive effects. However, based on the disagreement in the ecologists’ evidence regarding the likely success of the rehabilitation measures currently proposed, and given there would be residual effects from loss of habitat during the periods of diversion and the time it takes for rehabilitation to be completed, I consider that the proposal is inconsistent with this policy.

Proposed Southland Water and Land Plan 2024 (partially operative)

75. I note that the SRPS contains the following two policies applying to activities in the beds and margins of water bodies, one of which (Policy 28A) was added to give effect to clause 3.24 of the NPSFM:

Policy 28 – Structures and bed disturbance activities of rivers (including modified watercourses) and lakes

a. Except where Policy 27A³² applies, manage structures, bed disturbance activities and associated discharges in the beds and margins of lakes, rivers and modified watercourses, to avoid where reasonably practicable, or otherwise remedy or mitigate adverse effects on:

- 1. water quality and quantity;*
- 2. habitats, ecosystems and fish passage;*
- 3. indigenous biological diversity;*
- 5. the spiritual and cultural values and beliefs of the tangata whenua;*
- 6. mātaihai and taiāpure;*
- 7. public access (except in circumstances where public health and safety are at risk) and amenity values;*
- 8. natural character values and outstanding natural features;*
- 9. river morphology and dynamics, including erosion and sedimentation;*
- 10. flood risk;*
- 11. infrastructural assets;*
- 12. navigational safety;*
- 13. landscape values; and*
- 14. historic heritage values.*

Policy 28A – Rivers

(1) The loss of river extent and values is avoided, unless the council is satisfied that:

- (a) there is a functional need for the activity in that location; and*

³² This appears to be a typographic error and should read “Policy 28A”. There is no Policy 27A in the Plan.

(b) the effects of the activity are managed by applying the effects management hierarchy.

76. My reading of this pair of policies is that Policy 28A applies to activities that cause the loss of river extent and values, including where that loss is managed using the effects management hierarchy, and Policy 28 applies to all other “structures, bed disturbance activities and associated discharges in the beds and margins of lakes, rivers and modified watercourses” – i.e. where there is no loss of river extent or values, but there are other effects that need to be managed. I note that “loss of value” is defined in the NPSFM as follows:

loss of value, in relation to a natural inland wetland or river, means the wetland or river is less able to provide for the following existing or potential values:

(a) any value identified for it under the NOF [National Objectives Framework] process

(b) any of the following values, whether or not they are identified under the NOF process:

(i) ecosystem health

ii) indigenous biodiversity

(iii) hydrological functioning

(iv) Māori freshwater values

(v) amenity values

77. Based on the evidence of Mr Dungey, Mr Hamer and Ms Bowen, I consider that it is not disputed that the proposal will result in loss of river values as defined above, although there is disagreement over the degree to which this loss will be remedied via the proposed rehabilitation measures. Therefore, Policy 28A rather than Policy 28 applies to the activity.

78. Under Policy 28A of the pSWLP, activities that involve the loss of river extent and values must be avoided unless they meet the two tests set out in clauses (a) and (b).

79. In relation to clause (a), Ms Smith states that she is satisfied that there is a functional need for the mine at the proposed site because “the gold resource is at the subject location”.³³ Ms Collie agrees with this position.³⁴

³³ Smith (2025), paragraph 3.4.17

³⁴ Collie (2025), paragraph 251

80. Functional need is defined in the NPSFM as follows (emphasis added):
- functional need*** means the need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment
81. The same definition of this term is provided in the National Planning Standards 2019. These standards also contain a definition of operational need, as follows:
- operational need*** means the need for a proposal or activity to traverse, locate or operate in a particular environment because of technical, logistical or operational characteristics or constraints
82. The locations in which gold mining can occur are limited by the location of gold resources. The proposed site has been chosen because of the available gold resource, and I understand from conversations with the applicant's representatives that in their view it is necessary to divert Waikaka Stream and Shepherd's Creek in order to be able to access enough of the resource to make the project viable.
83. In my view, the mining activity therefore has an "operational need" to take place at the proposed site and to divert the rivers, but it is less clear if it has a "functional need", based on these definitions.
84. It is not true to say that gold mining activities "can only occur" in a river environment, but it is true that the proposal to mine the gold resource at this particular site, including the resource under the stream and creek, "can only occur" there.
85. However, given that the definition of functional need refers to either "a proposal" or "an activity", I consider that the definition is met; the proposal to mine the gold resource at the site (although not necessarily the activity of gold mining) does have a functional need to locate in a river environment, and therefore clause (a) of Policy 28A is met.
86. Clause (b) of the policy states that the Council must be satisfied that the effects of the activity are managed by applying the effects management hierarchy. This is defined in the NPSFM as follows:
- effects management hierarchy***, in relation to natural inland wetlands and rivers, means an approach to managing the adverse effects of an activity on the extent or values of a wetland or river (including cumulative effects and loss of potential value) that requires that:
- (a) adverse effects are avoided where practicable; then

(b) where adverse effects cannot be avoided, they are minimised where practicable; then

(c) where adverse effects cannot be minimised, they are remedied where practicable; then

(d) where more than minor residual adverse effects cannot be avoided, minimised, or remedied, aquatic offsetting is provided where possible; then

(e) if aquatic offsetting of more than minor residual adverse effects is not possible, aquatic compensation is provided; then

(f) if aquatic compensation is not appropriate, the activity itself is avoided

87. NPSFM clauses 3.24(2) and 3.24(3) provide guidance on how clause (b) of Policy 28A is to be interpreted, as follows:

(2) Subclause (3) applies to an application for a consent for an activity:

(a) that falls within the exception to the policy described in subclause (1) [i.e. Policy 28A]; and

(b) would result (directly or indirectly) in the loss of extent or values of a river.

(3) Every regional council must make or change its regional plan to ensure that an application referred to in subclause (2) is not granted unless:

(a) the council is satisfied that:

(i) the applicant has demonstrated how each step in the effects management hierarchy will be applied to any loss of extent or values of the river (including cumulative effects and loss of potential value), particularly (without limitation) in relation to the values of: ecosystem health, indigenous biodiversity, hydrological functioning, Māori freshwater values, and amenity; and

(ii) if aquatic offsetting or aquatic compensation is applied, the applicant has complied with principles 1 to 6 in Appendix 6 and 7, and has had regard to the remaining principles in Appendix 6 and 7, as appropriate; and

(iii) there are methods or measures that will ensure that the offsetting or compensation will be maintained and managed over time to achieve the conservation outcomes; and

(b) any consent granted is subject to:

- (i) conditions that apply the effects management hierarchy; and*
- (ii) conditions that specify how the requirements in (a)(iii) will be achieved.*

88. Ms Smith notes in her evidence that the Southland Water and Land Plan has not yet been amended to implement clause 3.24(3), although Policy 28A has been inserted in accordance with clause 3.24(1). She therefore considers that clause 3.24(3) “should be given regard in the consent process directly from the NPS-FM”. I agree with this view.
89. Ms Smith examines how effects will be managed via the steps in the effects management hierarchy, and Ms Collie’s evidence discusses and adds to Ms Smith’s analysis. I consider these steps in the paragraphs below.

Avoidance of effects

90. The S42A report states that the proposal will avoid effects in the following ways:³⁵
- Avoiding the landfill near Shepherd’s Creek to the north of the site. The final diversion of Shepherd’s Creek will flow 20 metres from the landfill site.
 - No blasting or chemical extraction methods are proposed to be used, avoiding the risks of these methods.
 - Buffers areas between the mining activities and surface water bodies will be maintained where possible.
 - Bunds to prevent intrusion of high flow into the mine site will avoid uncontrolled discharges to surface water during high flow events.
 - Waterway diversion will occur outside of the migration and spawning times of some species identified.
91. Ms Collie agrees with this, and adds that effects are also avoided as follows:
- The proposal for temporary and staged diversions rather than wholesale realignment of the stream, as was proposed in an earlier iteration of the proposal, avoids effects from the activity.³⁶
92. I see the timing of the diversions to avoid the migration and spawning times of certain species as a minimisation rather than an avoidance measure. The effect on the species concerned will be minimised but not avoided. Similarly, I

³⁵ Smith (2025), paragraph 3.4.19.

³⁶ Collie (2025), paragraph 252a&b.

consider that the staging of diversions minimises rather than avoids effects on river values.

Minimisation of effects

93. The S42A report states that the proposal will minimise effects in the following ways:³⁷
- Treatment of water on site in settlement ponds, to avoid discharging sediment and other contaminants to surface water.
 - Proposed staged diversions of the Waikaka Stream and Shepherds Creek, with the stream or creek returned to its previous alignment at the end of each stage.
 - Management plans are proposed to be required as conditions of consent, and adaptive management conditions are also proposed. This approach could be used to identify and manage adverse effects during the works.
94. Ms Collie agrees with this, and adds avoidance of works during migration and spawning periods, provision of continuous fish passage, and sediment controls during construction, as further minimisation measures.³⁸
95. Other minimisation measures referred to in the applicant's evidence, include:
- Timing of works in the drainage ditches to avoid spawning periods for Gollums.³⁹
 - The translocation of aquatic fauna species from the drains and ponds to suitable habitat before these water bodies are disturbed.⁴⁰

Remediation of effects

96. The S42A report states that the proposal will remedy effects in the following ways:⁴¹

³⁷ Smith (2025), paragraph 3.4.20.

³⁸ Collie (2025), paragraph 252c&d.

³⁹ Collie (2025), Appendix B Proposed Conditions of Consent, condition 31.

⁴⁰ Collie (2025), Appendix B, condition 30.

⁴¹ Smith (2025), paragraph 3.4.21.

- Creation of temporary diversion channels (one to two year duration) during each stage to provide for fish passage
- Rehabilitation of Waikaka Stream and Shepherds Creek, including habitat re-creation and riparian re-vegetation, following diversions.
- Topsoil reinstated on the land after each mining stage is completed.
- Trap and transfer of native fish, to minimise and remedy fish passage effects during diversion works.

97. Ms Collie notes the following additional remediation measures:⁴²

- Ongoing monitoring of rehabilitated habitat progression, with adaptive management to make changes if the habitat is not improving as expected.
- Placement of cobbles on the bed of rehabilitated channels.

98. In addition, I note that the updated proposed conditions provided in Ms Collie's evidence include the establishment of habitat features in the diversion channels, comprising of pools and shallow riffle areas, larger boulders, gentle meanders, and in-channel fish shelter elements such as securely anchored large woody debris (Condition 32).

99. Other remediation measures referred to in the applicant's evidence include:

- The creation of new drains, which could in time provide for habitat species displaced from existing drains, particularly Gollums, once vegetation is reestablished.⁴³
- The potential creation of a new terminal pond, with native riparian planting, which could in time provide habitat for species displaced from existing ponds.⁴⁴

Offsetting and compensation

100. As noted in the s42A report, no aquatic offsetting or compensation measures were offered in the application. However, the evidence of Ms Collie and Mr Warren Batt (Executive Director of Waikaka Gold Mines Ltd) indicates that the applicant is open to considering offsets and compensation.⁴⁵

⁴² Collie (2025), paragraph 252e&f.

⁴³ Collie (2025), paragraph 102; Dungey (November 2025), paragraphs 51, 52, 55.

⁴⁴ Collie (2025), paragraph 110; Dungey (November 2025), paragraphs 47 to 50.

⁴⁵ Collie (2025), paragraph 253; Batt (2025), paragraph 89.

Effects Management Hierarchy – conclusions

101. Overall, Ms Smith states that *“The application does not demonstrate how each step in the effects management hierarchy will be applied to the loss of extent or values of the river (clause 3.24 (a)(i)).”*⁴⁶ This point is not directly addressed in Ms Collie’s evidence.
102. I agree with Ms Smith’s assessment. There is uncertainty over the likely success of the proposed rehabilitation of Waikaka Stream and Shepherd’s Creek, following the diversions.
103. I also agree with Ms Smith’s view that, following avoidance, minimisation and remediation measures, more than minor residual adverse effects will remain.⁴⁷ Ms Collie’s evidence acknowledges this, although she also argues that these effects will be “remedied in the medium to long term”.⁴⁸ However, although the river values may be restored via rehabilitation in the medium to long term, in my view there will still be a significant gap, i.e. a loss of value, in the period before the rehabilitation is complete.
104. The unaddressed residual adverse effects consist of the loss of river values and extent from the point at which the first diversion begins, to the point at which the rehabilitation is successfully completed. I consider that these effects will be more than minor even if the rehabilitation is completed within the three-year timeframe anticipated by the applicant. However, the exact magnitude of these effects is uncertain, because there is uncertainty that successful rehabilitation is actually feasible; Mr Hamer and Ms Bowen’s lack of confidence in the rehabilitation proposals is discussed above.
105. More specifically, the residual adverse effects will include:
- Damage to the habitats of indigenous fauna due to sedimentation caused by the creation and use of the temporary diversion channels (unless sedimentation can be appropriately managed).
 - The relatively poor habitat for aquatic fauna in the diversion channels, for a duration of one to two years per channel, over five diversions. For example, this will include lack of shading; no shading vegetation is proposed given the short life of each channel.

⁴⁶ Smith (2025), paragraph 3.4.17.

⁴⁷ Smith (2025), paragraph 3.4.22.

⁴⁸ Collie (2025), paragraph 16.

- The relatively poor habitat for aquatic fauna in the restored river channel, for the duration of time until restoration to previous habitat quality is achieved. This could be a considerable amount of time, particularly if problems are encountered with the rehabilitation, as Mr Hamer and Ms Bowen predict may be likely based on indications from other projects.

106. Therefore, to satisfy clause (b) of Policy 28A, I consider both that more information and certainty is needed regarding the proposed remediation steps in the effects management hierarchy (which would create a clearer picture of the magnitude of residual adverse effects), and that additional offsetting or compensation steps are required to manage residual effects.

107. I note the following amended or additional measures to manage effects are recommended in Ms Bowen's evidence (if consent is granted):

- a. Preparation of a detailed temporary diversion management plan, with detailed methods and designs, including habitat enhancement measures. The diversion channels should have similar profiles to the original stream channels, to avoid constrictions that would lead to faster flow and could impede fish passage. To address lack of shading and effects on water temperature, the use of shade cloth and the planting of fast-growing species should be considered. The temporary diversion management plan should require monitoring of each diversion section, in relation to flow, loss of water to the ground, erosion and sedimentation, temperature, and fish presence and abundance, and adaptive management where monitoring results show this is required.⁴⁹
- b. Preparation of a complete and detailed restoration plan that clearly outlines how this complex restoration will be undertaken. This should be undertaken by experienced practitioners who have been involved in successful work of this kind in the past.⁵⁰
- c. Certainty regarding the proposal to establish a terminal pond with riparian planting at the completion of the project and the proposal to use a bridge for heavy vehicle crossings.⁵¹
- d. Preparation of a detailed fish management plan, with details of:

⁴⁹ Bowen (2025), paragraphs 28, 30, 32a, 32d.

⁵⁰ Bowen (2025), paragraph 40a.

⁵¹ Bowen (2025), paragraphs 60c & 61.

- i. Species at the site, including critical periods such as spawning and migration and how impacts on these can be avoided or minimised
 - ii. Salvage methods and handling procedures
 - iii. Release sites, and the criteria used to assess their suitability.
 - iv. Relevant legislation and authorisations required for translocation (Conservation Act 26ZM authorisations, Fisheries Act Special Permits etc)
 - v. Monitoring and reporting requirements
 - vi. Contingency procedures, such as actions to take in the event of fish mortality or unexpected issues.⁵²
- e. Preparation of a Gollum galaxias management plan, as proposed by Mr Hamer, using the “New Vale Coal Galaxias gollumoides management plan” as a template. This should be designed to ensure at least no net loss of Gollums and their habitat within the site, and should apply not only to the drainage ditches but also to the ponds and natural water bodies in the site.⁵³
- f. Establishment of a freshwater habitat restoration bond. If monitoring shows that habitat restoration has been ineffective, this bond should be used to restore the waterways further.⁵⁴ This approach is also advocated by Mr Hamer, and I note that it is included in the conditions appended to Ms Collie’s evidence, at condition 123.
- g. Offsetting or compensation measures to address remaining effects, potentially including replacement of willow species (which may be eradicated via a separate willow control programme) with indigenous species, in riparian margins within the whole site footprint.⁵⁵
108. In terms of compensation, I also note that Mr Batt suggests “*a fund for re-establishment and enhancement of galaxiid habitats outside the mine area*”⁵⁶, if compensation is needed to manage residual effects.
109. Moving on from Policy 28A, I consider that the following SRPS objectives and policy are also particularly relevant to the concerns raised in the DGC’s submission and Ms Bowen’s evidence:

⁵² Bowen (2025), paragraph 32b.

⁵³ Bowen (2025), paragraph 53a.

⁵⁴ Bowen (2025), paragraph 40d.

⁵⁵ Bowen (2025), paragraph 40f&g.

⁵⁶ Batt (2025), paragraph 89.

Objective 14

The range and diversity of indigenous ecosystems and habitats within rivers, estuaries, wetlands and lakes, including their margins, and their life-supporting capacity are maintained or enhanced.

Objective 15

Taonga species, as set out in Appendix M, and related habitats, are recognised and provided for.

Policy 32 – Protect significant indigenous vegetation and habitat

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

110. For the reasons discussed in relation to NPSFM Policy 9 and RPS Policy BIO.4, above, I consider that the proposal is inconsistent with pSWLP Objective 14 and Policy 32. In relation to pSWLP Objective 15, I note that Gollum galaxias, Longfin eel, Shortfin eel and Upland bully are all taonga species listed in Appendix M of the Plan. Based on the assessment of effects above, I do not consider that these species have been adequately provided for; therefore, I consider that the proposal is also at odds with this policy.

Other matters under s104(1)(c): Southland Murihiku Conservation Management Strategy

111. The Southland Murihiku Conservation Management Strategy is an ‘other matter’ that is relevant under s104(1)(c) of the RMA. It is a statutory document under the Conservation Act 1987 setting out objectives for integrated management of natural and historic resources. The mine site is located within the CMS’s “Freshwater Wai Māori Place”. The CMS’s outcome statement for this area includes the following:

Populations of indigenous freshwater fish are recovering...

Integrated management of the region’s freshwater ecosystems is achieved by working closely with Ngāi Tahu and the community, including local authorities, the farming community, Southland Fish and Game Council and other stakeholders.

Freshwater ecosystems off public conservation lands and waters have been improving year by year and are on track to reaching the overall long-term goal

of restoring them to healthy ecosystems with clean water, which can be used sustainably for recreating, drinking and production.

112. Policy 2.6.1 of the CMS is:

Work with Ngāi Tahu and the community, including relevant agencies, the Southland Fish and Game Council, adjacent landowners and relevant industries, to raise awareness about the connection between land use activities, freshwater ecosystems and the coastal environment, to ensure:

a) that the intrinsic values of wetlands, running waters, lakes and estuaries are sustained;

b) the integrated and holistic management of Southland Murihiku freshwater ecosystems;

c) the rehabilitation and restoration of the region's freshwater ecosystems;

d) that land use activities do not adversely impact on freshwater ecosystems;

e) the high-quality water yields from tussocklands are retained or enhanced; and

f) that the National Policy Statement for Freshwater Management 2011 is implemented.

113. Policy 2.3.3 of the CMS is:

Continue to raise awareness and advocate for the preservation of the habitats of threatened and at risk indigenous fauna within the Freshwater Wai Māori Place, including braided river ecosystems.

114. I do not consider that the application as it currently stands is consistent with the parts of the CMS quoted above, due to uncertainty around the likely success of river rehabilitation measures, and residual adverse effects on habitat, including habitat for threatened and at-risk indigenous species, in the natural and man-made water bodies on the site.

Conditions of Consent

115. Ms Collie's evidence for the applicant includes a set of conditions that have been revised from the application version. I will therefore use those conditions as the basis for my evidence.

Amendments recommended in Ms Bowen's evidence

116. Ms Bowen has recommended amendments to the consent conditions proposed by Ms Collie, in the final section of her evidence. I support these amendments, for the reasons given by Ms Bowen.

Stream Diversion Management Plan

117. There is a high degree of reliance on the use of the proposed Stream Diversion Management Plan (which would cover both the diversion of the rivers into temporary channels, and rehabilitation of the original river channels) to manage ecological effects. I note that a draft of this plan has not been provided, and as a result there is a lack of certainty over how proposed mitigation measures will be achieved and whether they are feasible. This uncertainty is exacerbated by the fact that the applicant has not referred to previous experience of undertaking river rehabilitation of this type and scale.
118. However, it is positive that the draft conditions provide clear, specific objectives to be achieved by the Stream Diversion Management Plan, with condition 40 stating that "The objective of the SDMP is to demonstrate how compliance with the conditions of this consent will be achieved", and other conditions setting objectives around fish passage, net gain or at least no net loss of ecological values in rehabilitated reaches of streams, necessary habitat features in temporary diversion channels, etc.
119. I consider that, if the Panel are minded to grant consent, conditions relating to the Stream Diversion Management Plan should require consultation of Hokonui Runanga, DOC and Fish and Game during preparation of the plan, with sufficient time provided for consultees to provide comment. The information submitted to Environment Southland for certification of the plan should be required to include a summary of comments from the consultees, and a description of how these comments have been responded to.
120. Requirements for the content of the plan should address the points made by Ms Bowen, referred to in paragraph 107a above, in relation to the profiles of the diversion channels, shading and temperature, and monitoring and adaptive management.
121. In relation to condition 40d in Ms Collie's evidence, I do not agree with the proposal that Environment Southland should have only 15 working days to respond, following the Stream Diversion Management Plan being submitted for circulation, or the proposal that, if no response is received within this time, the

Plan should be deemed certified. The Council is likely to need more time than this to assess the Plan, and I do not support the proposal for 'deemed' certification if this time runs out, as that would remove an important step in the management of effects for the activity.

Fish management plan and Gollum galaxias management plan

122. Based on Ms Bowen's evidence, I consider that two additional management plans should be required, to ensure that effects on indigenous fauna are appropriately managed. These are a fish management plan and a Gollum management plan, as described at paragraph 107d and e above.

Offsetting and compensation

123. Conditions should be applied in relation to the offsetting and/or compensation measures that are necessary to address residual adverse effects. As discussed above, potential measures of this kind that have been suggested in evidence include replacement of willow species (which may be eradicated via a separate willow control programme) with indigenous species, in riparian margins within the whole site footprint (Ms Bowen), and a fund for re-establishment and enhancement of galaxiid habitats outside the mine area (Mr Batt). There may be other suggestions made during expert conferencing or at the hearing.

Duration of consent

124. I note that the DGC's submission queried why a 20-year term is proposed, given that the anticipated duration of the mining activity is 7-8 years. The submission requested that the term be reduced to align with the duration of the mining activity.
125. I acknowledge that an explanation was provided for the consent duration, in a further information response provided by the applicant in April 2025⁵⁷, as follows:

In forming a consent term of 20 years, we have provided for:

- *1 year for obtaining additional non-RMA permissions (including access arrangements to Crown land).*
- *1 year of site establishment activities*

⁵⁷ Further information response, 8 April 2025: [resource consent application](#), page 5.

- *An expected mining period of 8 years.*
- *A lag of around 1.5 years between the commencement of mining and the backfill being suitable for rehabilitation to farmland. For example, land mined in 'year 8' would be suitable for rehabilitation to pasture in 'year 9.5'. Note that pasture rehabilitation would occur at the appropriate season and so this lag could be longer depending on the timing of backfilling.*
- *Minimum of 3 years of rehabilitation and monitoring following the completion of mining.*
- *20% contingency; we consider this to be common and sensible practise for projects of this scale and considering the range of uncertainties.*

Accounting for the above, the duration adds up to 17.4 years. We have rounded up to 20 years to provide additional contingency and acknowledging that any difference in effect between 17.4 and 20 years is likely to be insignificant.

126. I understand from discussions with the applicant that it is desirable to retain flexibility in the timing of mining over a 20-year period, in order to be able to respond to events such as a change in gold price, or operational difficulties encountered after work begins. However, a longer consent duration means a longer potential period of disturbance to the rivers. Therefore, if the requested duration is granted, I consider that consent conditions should be amended to provide greater certainty over the following matters:
- a limit on how long temporary staged diversions are in place for
 - requirements for rehabilitation of each river section to begin as soon as practicable
 - a limit on the number of the staged diversions that can be in place at one time.

Bond

127. I note that a bond is proposed, as set out in conditions 122 to 131. This bond is to secure compliance with consent conditions, including those that address site rehabilitation. I support this proposal.

DOC permission

128. I note that an application has been lodged with DOC for an Access Arrangement for the mining of the Waikaka Stream Marginal Strip as part of the wider mining on adjoining private property. The marginal strip has a fixed

location, and as a result now only adjoins the stream in part. Processing of this application is underway.

129. I do not consider that any amendments to conditions are necessary in relation to this.

Section 104D Gateway Test

130. Overall, I consider that as it currently stands the development does not meet either limb of the s104D gateway test. Without more certainty on the likelihood of success of proposed remediation measures, and without adequate aquatic offsetting and compensation, I consider that the adverse effects on freshwater ecology will be more than minor. In addition, I note that all effects may not yet be known due to the information gaps identified above, which include gaps in information on:

- the ecological values of Shepherd's Creek
- the availability of suitable existing ditch habitat on site for the translocation of Gollums living in the ditches that will be disturbed
- how the ditches and ponds currently connect to each other and to natural water bodies in the site, and how they are proposed to be connected following completion of mining activity, and
- how indigenous species, particularly the threatened Gollum galaxias, use the interconnected habitat over time.

131. In my view, the proposal is contrary to relevant policies including Policy 9 of the NPSFM relating to habitats of indigenous freshwater species, Policy BIO.4 of the Southland RPS relating to indigenous biodiversity, and Objective 14, Objective 15, Policy 28A and Policy 32 of the proposed Southland Water and Land Plan relating to indigenous biodiversity, taonga species, and the loss of river extent and values.

Conclusion

132. For the reasons set out above, I consider that:
- The activity as currently proposed will result in adverse effects on river extent and values, including indigenous biodiversity, that will not be appropriately managed under the effects management hierarchy, as is required by the NPSFM. Indigenous biodiversity at the site includes a

threatened species (Gollum galaxias), an at-risk species (Longfin eel) and several taonga species, listed in Appendix M of the pSWLP.

- As a result, neither limb of the s104D gateway test is met, as things stand.

133. However, I consider there is potential for effects to be appropriately managed, and therefore for the activity not to be contrary to relevant policies, if the following actions are taken:

- Information gaps relating to ecological values at the site are filled
- Greater certainty is provided in relation to the feasibility of rehabilitation of the rivers
- Greater certainty is provided that proposed translocations of Gollum galaxias and other species will be successful, including by providing information on translocation sites
- Residual adverse effects that will remain following remediation are addressed via appropriate offsetting or compensation actions.

134. I note that a consent authority may choose to decline an application under RMA s104(6) if inadequate information has been provided to determine it. Alternatively, the hearing could be adjourned until additional information is provided. My view is that, in order for there to be adequate information on which to base a decision on the application, the following needs to be provided by the applicant:

- Additional information on:
 - ecological values at Shepherd's Creek
 - the availability of suitable existing ditch habitat on site for the translocation of Gollums living in the ditches that will be disturbed
 - how the ditches and ponds currently connect to each other and to natural water bodies in the site, and how they are proposed to be connected following completion of mining activity, and
 - how indigenous species use the interconnected habitat over time.
- A draft version of the Stream Diversion Management Plan (covering both diversion and rehabilitation) referred to in proposed conditions 40 to 43.

- Proposals for offsetting and compensation to address the residual adverse effects that will remain following rehabilitation.

135. However, if the Panel is minded to grant consent (either with or without the above information), I recommend a range of amendments to conditions, as set out above.



Jane Macleod

DATED this 25th day of November 2025

Provided to DOC by the applicant prior to the hearing

