



## **INTRODUCTION**

1. My name is Mark William Geddes, I am a director and planning consultant at Perspective Consulting Ltd. I have prepared the s.42A RMA report on behalf of Grey District Council. My qualifications and experience are set out in that report.

## **CODE OF CONDUCT**

2. I confirm I have complied with the Environment Court's Code of Conduct in preparing this evidence.

## **SCOPE OF STATEMENT**

3. The scope of my summary statement will address the key remaining issues in contention.

## **ISSUES IN CONTENTION**

### **Natural Character**

4. The key area of disagreement between the landscape architects is how natural character adverse effects will be managed. Mr. Girvan's concern is that the pattern of coastal planting proposed appears linear and relatively unresponsive to dynamic coastal processes. Subsequently, he recommends some amendments to condition 19.5 to ensure all areas of planting proximate to waterbodies are managed with the involvement of a Landscape Architect so that natural character can be more effectively restored. I agree and consider the involvement of a Landscape Architect in implementing this planting will likely improve the natural character outcome.

### **Covenant to Protect Plantings**

5. I agree with the Hearings Panels' suggestion that it is desirable to include a covenant on the site's title to protect the proposed plantings. It will alert any future landowners that the plantings are protected and will also protect the plantings against any change in district and regional plan rules that might permit the clearance of this vegetation.

### **Indigenous Fauna**

6. The matters in contention regarding indigenous fauna are potential adverse effects on:
  - a. at risk taxa from lighting, particularly the Western Petrel;
  - b. avifauna in wetlands and adjoining land;

- c. foraging and nesting birds on the site.
7. My position on these matters is that conditions should be imposed to:
- a. Prevent the activity operating at night, or during weather conditions that require external lighting, in order to protect the Western Petrel.
  - b. Require the mine to be setback 100m from wetlands (including those likely wetlands along the site's northern boundary) in order to protect fauna on adjoining land.
  - c. Prevent the disturbance of nesting Kororā.
8. These matters are discussed in turn below.

### Western Petrel

9. Potential adverse effects on the Western Petrel are a key matter in contention. The applicant has issued a revised:
- a. Avian Management Plan (AMP).
  - b. Lighting Management Plan (LMP).
  - c. Ecological evidence that includes a lighting plan and a memo from IHC mining.
  - d. Light conditions.
10. Proposed lighting includes:
- a. 23 exterior lights for buildings, plant and the car-park.
  - b. Mobile lighting for maintenance of plant and equipment.
  - c. Lighting for the Mining Unit Plant during the day in periods of poor light.
11. On the face of it, the suite of mitigation measures indicates that there will be minimal exterior lighting at the site. However, there remains uncertainty about the following:
- a. How often outside maintenance will be required.
  - b. How often staff will need to move and operate outside of buildings at night.
  - c. How often and how long doors to lit buildings will need to be open at night.
  - d. Whether adherence to the Australian Government's National Light Pollution Guidelines for Wildlife will be effective in mitigating adverse effects on the Western Petrel.
  - e. Whether the lighting can comply with health and safety requirements given the requirement of condition 16.2 to comply with the Australian Government's National Light Pollution Guidelines for Wildlife January 2020 or subsequent revision<sup>1</sup>.

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<sup>1</sup> Note the evidence from K. Simister that there is a subsequent review of that guidance which has not been referred to by the applicant.

- f. Whether, as stated in Mr. Harding's evidence, the daylight hours restriction (30 minutes before sunrise to 30 minutes after sunset) will avoid effects when weather conditions require lighting.
12. Mr. Harding's evidence<sup>2</sup> also makes the point that even with an applicant's best of intentions, mitigation measure can and often do fail. He suggests there would be high consequences if the mitigation measures proposed to protect the Western Petrel failed.
13. There is also uncertainty about the effectiveness of the adaptive management provisions of the AMP, being:
  - a. The effectiveness of trail cameras to detect birds.
  - b. The ability of staff to see a black bird at night or find birds that hide when they ground.
  - c. The extent the AMP will be resourced.
  - d. The extent to which the applicant will judiciously implement the AMP or LMP.
14. I also note that the trigger for the review of the AMP in condition 18.7 creates uncertainty as it relies on an undefined term, being the presence of birds 'within close proximity' of buildings and infrastructure etc. The use of the words 'within close proximity' is unclear and could be interpreted leniently so that the review of the AMP is never triggered. Even if the words 'within the site and within close proximity to the site' were used as the trigger to review the AMP, it does not address the comments by K. Simister made at the hearing and the evidence of Dr. Waugh<sup>3</sup> that the Western Petrel could be distracted from lights on the site but could land some distance away from site. This makes it very difficult to detect birds and brings into question the effectiveness of an adaptive management regime for this situation.
15. Even if lighting does prove to be minimal, any new lighting will add cumulatively to the existing lighting effects on the Western Petrel. While evidence suggests that lighting effects are not the biggest threat to their population, it is clear it is significant threat, and any new lighting will cumulatively add to that threat. It is possible that one maintenance activity (requiring the mobile lights) could result in the mortality of Western Petrel(s). The applicant proposes an adaptive management process to remedy and minimise potential adverse effects, but as stated above, there is uncertainty as to how effective that will be.
16. Even if one individual Western Petrel died as a result of the proposal, the evidence from Mr. Harding<sup>4</sup> suggests that it could potentially have a more than minor adverse effect on the population of the Western Petrel, particularly if the loss coincides with adverse effects from other population-level threats. The loss of one or more individuals could perhaps be dismissed

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<sup>2</sup> Paragraph 63-64 Supplementary evidence Mike Harding dated 18 March 2024

<sup>3</sup> Paragraph 10 Statement of Evidence Dr. Susan Waugh 17 March 2024

<sup>4</sup> Paragraph 62 Supplementary evidence Mike Harding dated 18 March 2024

if the population of Western Petrel was resilient. However, the expert evidence from Dr. Waugh and K. Simister<sup>5</sup> is that the population of the Western Petrel is not resilient. The evidence of Dr. Waugh<sup>6</sup> suggests that the AMP which allows for two ‘interactions’ with the Western Petrels a month (we assume this means grounded or fatalities) would highly likely cause significant adverse effects on the population.

17. The potential adverse effects on the Western Petrel could also be dismissed if the permitted baseline is considered. However, in this instance, there are good reasons not to consider the permitted baseline including:
  - a. The at risk status of the Western Petrel.
  - b. Policy 11 of the NZCPS that requires adverse effects on at risk taxa to be avoided.
  - c. The fact that the Grey District Plan does not specifically address this effect on Western Petrel and has not given effect to the NZCPS.
18. The potential adverse effects on the Western Petrel must be compared against the existing environment, including permitted activities that are likely to occur in that environment. However, lighting in the area surrounding the site is relatively low. It is also unlikely that there will be much in the way of new development in the area. New development is possible, but it is likely to be minimal. Accordingly, when compared against this existing environment, the proposal would likely increase lighting effects in the area.
19. Policy 11 of the NZCPS provides direction on this matter and requires adverse effects on at risk taxa to be avoided. I understand that this means that only minor or transitory effects would be acceptable and all other effects, including materially harming the species, should be avoided. In this case, there is uncertainty as to whether that threshold would be breached or not. The nature of the lighting proposed, and the associated mitigation measures could mean that effects on the Western Petrel are nil or transitory. However, on the other hand, one maintenance event requiring lighting could potentially kill a number of birds, which could in turn have a population level impact on the species, particularly if the population was vulnerable at the time. Mr. Harding confirms that potential adverse effect would be significant. Ultimately, the impact of the lighting on the Western Petrel is uncertain.
20. Given this uncertainty, Policy 3 of the NZCPS is relevant. This requires a precautionary approach is adopted for activities whose effects on the coastal environment are uncertain, unknown, or little understood, but potentially significantly adverse. Policy 3 of the NPSIB is

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<sup>5</sup> Statement of Evidence, Dr Susan Waugh, 25 January 2024 [37 & 63], Statement of Evidence, Kate Simister, 26 January 2024 [67-68]; Summary Statement of Oral Evidence, Kate Simister, 26 February 2024 [11]

<sup>6</sup> Paragraph 9, Statement of Evidence, Dr. Susan Waugh 17 March 2024

similar. As the evidence from Mr. Harding<sup>7</sup>, Dr Waugh<sup>8</sup> and K Simister<sup>9</sup> is that the loss of an individual Western Petrel could have a population level effect and therefore be potentially significantly adverse effect. As such a precautionary approach needs to be applied in accordance with Polic 3 of the NZCPS.

21. The applicant may suggest they are taking a precautionary approach. However, there remains uncertainty with their approach and accordingly a need for further precautions. Subsequently I recommend there should be no operation or activities undertaken during the hours of darkness and when weather conditions require external artificial lighting.

22. I have given some thought as to whether the important economic benefits of the proposal should dictate some leniency on this matter. I suggest they should not on the basis that the above stated policies of the NZCPS provide clear government direction on this matter.

### Setback from Wetlands

23. The key recommendation to setback mining 100m from the coastal lagoon and wetlands (including those on the site to the north) is informed by:

- a. Mr. Bramley's evidence that there are 15 at risk avifauna species present in the wetland and possibly more.
- b. The evidence from Mr. Harding<sup>10</sup> that there is uncertainty about the adverse effects of the activity on avifauna in the site's wetlands and on adjoining land; the potential adverse effect on avifauna could be significant; and that a 100m setback would help reduce those effects.
- c. There is no data on vegetation and habitat use on the property to the north of the site and there is evidence from Mr. Harding<sup>11</sup> that this area is likely to be ecologically significant.
- d. The NZCPS requires that:
  - i. Adverse effects on at risk taxa are to be avoided<sup>12</sup>, which means avoiding material harm on those species and only allowing minor or transitory effects.
  - ii. Significant adverse effects on the adjoining wetlands and lagoons are to be avoided and other adverse effects are avoided, remedied or mitigated<sup>13</sup>.

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<sup>7</sup> Paragraph 15 Supplementary evidence Mike Harding dated 18 March 2024

<sup>8</sup> Paragraphs 37 & 63 Statement of Evidence Dr Susan Waugh 25 January 2024

<sup>9</sup> Summary Statement of Oral Evidence, Kate Simister 26 February 2014

<sup>10</sup> Paragraph 39 Supplementary evidence Mike Harding dated 18 March 2024

<sup>11</sup> Paragraph 27 Supplementary evidence Mike Harding dated 18 March 2024

<sup>12</sup> Policy 11(a) NZCPS

<sup>13</sup> Policy 11(b) NZCPS. Note, this policy is superseded by Policy 11(a) in respect of at risk taxa.

- iii. Where appropriate, buffer areas from sites of significant indigenous biological diversity<sup>14</sup>.
- iv. A precautionary approach towards activities whose effects on the coastal environment are uncertain, unknown, or little understood, but potentially significantly adverse<sup>15</sup>.
- e. The NPS-IB which requires local authorities to adopt a precautionary approach toward proposed activities where:
  - i. the effects on indigenous biodiversity are uncertain, unknown, or little understood; but
  - ii. those effects could cause significant or irreversible damage to indigenous biodiversity.

24. The Hearings Panel may be interested in whether similar adverse effects on the adjoining wetlands and habitats could occur from permitted activities. A range of rural, residential and non-rural activities are permitted by the Grey District Plan. However, I consider they are generally unlikely to occur at a comparable intensity, scale or duration to that of the proposed activity. In any case, it would be inappropriate to consider the permitted baseline on the basis of the at risk status of the species in this area and Policy 11 of the NZCPS that requires adverse effects to be avoided.

### Nesting Birds

25. The revised AMP acknowledges the possible presence of Kororā on the site and in the broader area and states that the response plan (yet to be prepared) may include relocation of nesting Kororā. The evidence from Mr. Harding suggests that relocating nesting Kororā may have a significant adverse effect<sup>16</sup>. As the Kororā are classified as an at risk taxa, Policy 11 of the NZCPS applies and requires adverse effects to be avoided. Policy 3 of the NZCPS also applies where there is uncertainty and requires a precautionary approach to activities that could have a significant adverse effect. Given these policies, if there are Kororā found to be nesting on the site, it seems the only way to avoid significantly affecting them is to leave them there and to take suitable precautions so that they are not disturbed e.g. create a buffer around the nest. Otherwise Kororā may be displaced from favoured nesting sites. Consent conditions have been recommended to ensure nesting Kororā are not disturbed.

26. The revised AMP also proposes to discourage other birds that forage or nest at the site. The AMP states that the South Island Pied Oystercatcher (at risk – declining) and the Banded

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<sup>14</sup> Policy 6(1)(j) NZCPS

<sup>15</sup> Policy 3(1) NZCPS

<sup>16</sup> Paragraph 18 Supplementary Statement Mike Harding dated 18 March 2024

Dotterel (at risk - declining) may be present at the site. Mr. Harding's evidence<sup>17</sup> states that this will not avoid adverse effects on avifauna and that the magnitude of adverse effects of any displacement is unclear. However, he has confirmed that discouraging or displacing these birds is unlikely to have a population level effect on the taxa and the level of adverse effect is likely to be minor or transitory. Accordingly, I consider these species will not be materially harmed and adverse effects on their taxa will be avoided in accordance with the Policy 11 of the NZCPS.

## Dust

27. The key concern I raised in my s.42A report regarding dust management is whether the dust will be radioactive. However, the evidence from Mr. Adouin suggests that this will not likely be the case. Accordingly, I am confident that the Dust Management Plan will be an appropriate mechanism to manage dust effects.

## Bond

28. There are two key issues concerning the proposed quantum of the bond.
29. First there is no evidence that the bond amount will be sufficient to cover the costs of the works. Instead of the \$160,000 bond proposed by the applicant, I consider the bond should be calculated objectively by an independently advisor with expertise in calculating mine bonds. There also should be a process in the conditions to resolve any disagreement between the applicant and the Councils in the setting of that bond.
30. Second, the quantum of bond appears to only be calculated in respect of the reinstatement of the mine void (\$160,000) and the removal of the processing plant. It does not include the multiple eventualities potentially associated with breaching consent conditions. This again reinforces the need for an independent advisor to calculate the bond.
31. The quantum of the proposed bond does not necessarily need to be calculated using the Monte Carlo simulation technique<sup>18</sup> as stated in my suggested condition. However, that approach may be useful in calculating multiple eventualities resulting from non-compliances with consent conditions. If any alternative approach is to be used, it should be demonstrated that it has been used effectively in the past to calculate bonds for uncertain situations.
32. I have suggested an appropriate bond conditions in **Addendum A** of this evidence.

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<sup>17</sup> Paragraph 21 Supplementary Statement of Evidence Mike Harding dated 18 March 2024

<sup>18</sup> Monte Carlo Simulation, also known a multiple probability simulation, is a mathematical technique, which is used to estimate the possible outcomes of an uncertain event.

## Traffic Safety Effects

34. Several submitters raised traffic safety effects as an issue. Video evidence was also presented at the hearing illustrating existing traffic safety issues. The Hearings Panel agreed that the applicant's traffic evidence should be peer reviewed. Mr. Collins of Abley has conducted that peer review. His statement of evidence is dated 29 February 2024 and has informed my comments below, as has the Joint Witness Statement (JWS) prepared by Mr. Collins and Mr. Fuller.
35. Mr. Collins' evidence<sup>19</sup> and the JWS suggests the proposal will have a negative effect on cyclists given the increased truck movements will increase the likelihood of a crash occurring. Mr. Collins states the likelihood of a crash resulting in a fatal or serious injury involving a cyclist or pedestrian is high<sup>20</sup>. His evidence does not quantify the likelihood of an accident occurring.
36. I rode part of the route on the 5 February 2024. I can agree with Mr. Collins that there are parts of the route that present an acute danger to cyclists. Compounding traffic safety issues is the loud noise of the surf in places, which makes it difficult for cyclists to hear approaching traffic. This subsequently reduces their ability to move to protect themselves. I only noticed one other cyclist during my two visits to the site. I witnessed several people at a school bus drop off point close to the site.
37. Given the apparent relatively low numbers of pedestrians and cyclists, a serious truck and pedestrian/cyclist accident is characterised in the JWS as a risk of a low likelihood of occurring but a high potential magnitude if it does occur (fatality).
38. Mr. Collins' evidence considers four measures to mitigate traffic safety effects, including:
- a. An off-road pedestrian/cyclist route.
  - b. Hard shoulder widening.
  - c. Road signage and markings.
  - d. Amendments to the conditions and Traffic Management Plan (TMP).
39. Mr. Collins dismisses the first two mitigation measures because of their excessive costs. My main concern with an off-road pedestrian/cyclist route is that it is outside the applicant's control to implement. In relation to hard shoulder widening, there is too much uncertainty as to whether it could be practically implemented given the topography of SH6. Accordingly, I agree with Mr. Collins, although for different reasons, that the first two mitigation options should be dismissed.

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<sup>19</sup> Paragraph 47 Mat Collins Evidence

<sup>20</sup> Paragraph 26 Mat Collins Evidence

40. The JWS indicates that both experts agree that:
- a. drivers can become complacent with static road signage;
  - b. active signage is more effective than static signage/markings;
  - c. that new active signage on SH6 would improve safety for existing users.
41. However, Mr. Collins and Mr. Fuller do not agree on the need to install signage and markings to mitigate road safety effects on SH6. Mr. Fuller considers that radio communication along with the other measures in the Transport Management Plan will be sufficient to mitigate road safety effects. On the contrary, Mr. Collins considers road signage and markings will mitigate the adverse effects of the proposal, albeit he is unsure whether it is commensurate with the scale of adverse effects created by the application.
42. I am not an expert regarding the effectiveness of radio communication between drivers to detect cyclists. However, it strikes me that it is dependent on a driver first identifying a cyclist and communicating it effectively to other drivers. The first driver therefore has an increased chance of colliding with a cyclist. Further, as with any communication and particularly radio communication, it can be unclear. For instance, the communication may not be heard, or could be misheard or misunderstood. It is also dependent on the drivers proactively implementing the radio communication, which is uncertain. Accordingly, because of these issues I still see merit in the active road signage.
43. In terms of being commensurate with the scale of adverse effect created, there is no evidence on the likelihood of a crash occurring. However, the JWS does agree that if a crash did occur it would likely be fatal. Any fatality is a tragedy which causes large costs and has wide implications. Therefore, in my mind, the consequence of an accident, justifies the expenditure.
44. The JWS indicates disagreement regarding funding the road signage/markings, with Mr. Fuller suggesting there should be cost sharing with Waka Kotahi. Mr. Collins agrees that this might be appropriate but notes that funding might not be available. I agree with Mr. Collins. The funding limitations of Waka Kotahi are well known and therefore it is possible and even likely that they will not be able to contribute to the costs of the signage. Further, given the JWS indicates that both experts agree that the proposal will create adverse road safety effects, it should be incumbent on the applicant to mitigate that effect, despite the fact it will benefit existing road users and that there are deficiencies in the road network. The adverse effects created by the applicant are in addition to, or worsen, the existing deficiency.
45. While we have not had evidence on the cost of the road signage or markings, it would surprise me if those costs were significant in the context of the entire development, particularly

considering the scale of its economic benefits. The signage would also benefit any future mining conducted in the Barrytown area by the applicant.

46. While road signage and markings will require the approval of Waka Kotahi, they have agreed in principle to this, which gives confidence that it is capable of, and likely, to be implemented.
47. The JWS indicates agreement on the need for a complaints phone number to be indicated on trucks but there needs to be some flexibility regarding the wording as the consent holder intends to contract out the haulage. They also agree that there needs to be a mechanism for the consent holder to collect records and report driver behaviour. I agree and conditions are proposed to ensure this occurs.
48. The relevant objectives and policies<sup>21</sup> of the Grey District Plan confirm the importance of ensuring activities do not affect pedestrian safety and the need to avoid, remedy or mitigate effects on roads. Therefore, the proposal to mitigate traffic safety effects aligns with the Grey District Plan.
49. Mr. Collins recommends several amendments to TMP conditions. I agree those amendments strengthen the TMP as an effective tool to manage traffic effects. Due to the fatality risk and the reliance on the TMP, it is crucial that it is robust. Accordingly, I have suggested some amendments to the conditions to ensure:
  - a. Truck drivers are required to read and agree to implement the TMP.
  - b. Periodic annual monitoring is required by an independent traffic expert to ensure drivers comply with the TMP.
  - c. The activity must immediately stop following any fatal or serious accident and must not recommence until such time as the incident has been investigated by an independent traffic safety expert (appointed by Grey District Council) in consultation with the roading control authority and any recommendations to prevent a similar incident occurring are incorporated into the TMP.
50. The reasons for these conditions are:
  - a. The requirement for truck drivers to read and agree to the TMP will ensure they have awareness and subsequently a degree of personal accountability and commitment to its implementation.
  - b. Periodic annual monitoring will help ensure compliance with the TMP as it could occur at any time and will encourage organisation commitment to its implementation.
  - c. The requirement for the activity to stop after a fatal/serious accident will:
    - i. Ensure the activity does not continue after an accident occurs and before the review of the TMP is completed. Otherwise, the risk would continue during this period.

- ii. Provide a financial incentive for the applicant to adhere to the TMP, and as such, help ensure a positive driver safety culture.
- d. Requiring an independent review of the TMP will ensure impartiality.

51. The applicant may suggest these requirements are excessive considering that 20 truck movements per day could occur as a permitted activity without any controls<sup>21</sup>. First, I would note the proposed truck movements are more than double the permitted baseline and therefore increase the risk of an accident. Second, given the serious consequences of an accident, this is an instance where the permitted baseline should be dismissed. It would be tragic if a legal construct dismissed mitigation measures that could save a life(s).

52. Mr. Collins concludes that there are no grounds to decline the consent considering:

- a. Truck drivers are professionals and the TMP will ensure they are educated on the risks of SH6.
- b. The amended TMP will increase the accountability of both the consent holder and truck drivers, which will result in greater care and empathy for other road users, and adherence to the road rules.
- c. Warning signage and markings will improve driver and cyclist awareness at the eight key constraint locations and will be a minor improvement compared to the existing environment.

53. In addition to these matters, I add that the consent conditions that require no truck driving at night and during the school bus drop off/pick up period will also reduce the risk of an accident. However, not all school bus drop off/pick up times are included in condition 15.7. I consider that is a notably omission, which the applicant should address.

54. With the above matters in mind, and subject to the recommended amendments and the applicant addressing the deficiency in condition 15.7, I consider the potential traffic safety effects should be managed appropriately.

## **Management Plans**

55. The application relies heavily on Management Plans to manage adverse effects. As such and given the differences in opinion amongst the experts regarding the content of the Management Plans, it would be prudent to approve the Management Plans as part of the consent. This would also reduce the burden on the respective Councils in approving the management plans post consent and ensure transparency of process.

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<sup>21</sup> Rule 19.7.16 of the Grey District Plan permits 20 truck movements and 100 other vehicles per day

56. Revised Lighting and Avian management plans have been submitted post the initial hearing. I have reviewed these management plans briefly to inform the content of this evidence. However, I have not reviewed them as to whether they implement the conditions of consent. Further work would be needed to conduct that review.

### **Consent Oversight**

57. I consider it will be crucial to provide for independent oversight of the certification of management plans and consent compliance. My report recommends the establishment of an Expert Advisory Panel that would make recommendations to Council on these matters. This was proposed to:

- a. Ensure Council has sufficient expertise and capacity to resource the matter.
- b. Deal with the complexity and interrelationship between the adverse effects.
- c. Give submitters confidence that oversight is independent and impartial.

58. The approach has been used by the Environment Court<sup>22</sup> previously. WCRC use this approach in relation to two other mines in the region and find it useful.

### **Community Liaison Group**

59. To reduce the impact on individuals, I agree the community members of the Community Liaison Group should be remunerated by the applicant. The conditions of consent should state the remuneration rate per hour and the matters for which remuneration can be sought.

### **Conditions of Consent**

60. I have reviewed the draft consent conditions supplied by the applicant late on the 14 March 2024. I have not had sufficient time to comprehensively review these conditions but have made some suggested amendments to conditions, which are set out in **Addendum A**.

### **CONCLUSION**

61. Subject to the amended conditions in **Addendum A**, I conclude the adverse effects of the activity can be appropriately managed in line with statutory planning documents and in way that accords with Part 2 RMA. Accordingly, I recommend land use consent is granted subject to the amended conditions in **Addendum A**.

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<sup>22</sup> ENV-2015-WLG-000019 relating to the Waimea Dam in the Tasman District<sup>[1]</sup>. This consent required establishment of a Biodiversity Technical Advisory Group (BTAG) the role of which is to provide independent advice for the preparation of a Biodiversity Management Plan, implementation of that plan, and annual monitoring of biodiversity outcomes.