Before a panel appointed under the Fast-Track Approvals Act 2024 **FTAA-2510-1120**

UNDER: the Fast-track Approvals Act 2024 (**Act**)

IN THE MATTER: an application for approvals for the Lake Pūkaki Hydro Storage and Dam Resilience Works

BY: **MERIDIAN ENERGY LIMITED**
Applicant

STATEMENT OF EVIDENCE OF AMY LOUISE CALLAGHAN ON BEHALF OF MERIDIAN ENERGY LIMITED

Planning

Dated: 15 April 2026

Counsel acting:
Stephen Christensen
Project Barrister
P 027 448 2325
stephen@projectbarrister.nz

INTRODUCTION

1. My full name is Amy Louise Callaghan

2. I am employed by GHD Limited as a Technical Director – Planning and I am the Christchurch Planning Team Leader. I have been employed by GHD for 13 years.

3. I hold a Bachelor of Resource and Environmental Planning (honours) from Massey University and I am a full member of the New Zealand Planning Institute.

4. I have been practising as a planner in New Zealand for 24 years. This has primarily been in consulting roles in the South Island.

5. I have been asked by Meridian Energy Limited to provide a response to the planning matters addressed in the section 51 report prepared by the Department of Conservation as well as relevant specific matters contained in the written comments on the application from the following persons invited by the Panel to comment under section 53 of the Act:

   a. Department of Conservation

   b. Environment Canterbury – Canterbury Regional Council

   c. Genesis Energy Limited

6. I have prepared this statement within the limited time available to me. Consequently, it is necessarily at a high level. I am able to provide a more fulsome response to the issues covered in this statement if the Panel requires further assistance from me.

CODE OF CONDUCT

7. I confirm that I have read the Code of Conduct for Expert Witnesses as contained in section 9 of the Environment Court Practice Note (2023), and have complied with it in preparing this evidence. I confirm the issues addressed in this evidence are within my area of expertise, and I have not omitted material facts known to me that might alter or detract from my evidence.

Department of Conservation

8. In their s51 report the Department of Conservation (DOC) questions *whether the information requirements in clause 2 of Schedule 7 have been sufficiently addressed in respect of the proposal to relocate Mackenzie skinks.*

9. DOC have not specifically identified which aspects of clause 2 they are alluding to, I have assumed given the wider nature of their comments that this relates to the lack of specific salvage/relocation protocols in the Lizard Management Plan (LMP). This matter is dealt with in detail in Mr Heggie Grace's evidence, noting that in response to DOC's comments, Meridian now propose a salvage process for the northern stockpile. Updates to the LMP include methods for catching, handling and release of Mackenzie skink located within this area.

10. I consider that all other matters in clause 2 have been addressed to an appropriate level given the scale of the activity and impact on protected wildlife. I further note that some of the statements in the Substantive Application broadly refer to 'Lizards' rather than specific species (i.e. they do not specifically refer to 'Mackenzie skinks'). Where specific details relating to individual species are required these are noted.

11. DOC also note in their s51 report that *when assessed against the purpose of the Wildlife Act, DOC is not satisfied that the proposal is consistent with the purpose of that Act. DOC considers that if additional mitigation measures are applied by way of an amended proposal and/or additional conditions, the Project's impacts could be reduced, and it is likely the wildlife approvals sought could be granted in a manner that would be consistent with the purpose of the Wildlife Act.*

12. In the absence of a lizard survey at the time the Substantive Application was submitted, I concluded that based on the advice that the likelihood of lizards being present was low, protocols contained in the Lizard Management Plan associated with Compensation and Relocation were sufficiently detailed such that the purpose of the Wildlife Act was met.

13. Subsequently, a lizard survey was completed which detected lizards adjacent to rock stockpiles and this necessitated further work on lizard management. Over the course of the last 5 months this has included meetings with DOC and their Herpetologist with the endeavour to reach agreement as to management

protocols that are acceptable to both parties. This resulted in Meridian agreeing to establish a lizard exclusion fence around the northern stockpile, an accidental discovery protocol, and a compensation plan.

14. I consider that based on the findings of the lizard survey, the inclusion of these three mitigation measures means the granting of the wildlife approval applied for is consistent with the purpose of the Wildlife Act. Consistency with the purpose of the Wildlife Act is further affirmed by the salvage proposal for the northern stockpile that is now offered by Meridian in response to DOC's s51 comments and is detailed in the evidence of Mr Heggie-Grace.

15. DOC note that Meridian has not sought wildlife approval to handle and relocate lizards and has provided insufficient information to enable DOC or the Panel to be satisfied that approval should be given for these activities. On this matter I note that the Substantive Application was prepared prior to the Lizard Survey being undertaken and included approvals to handle and relocate lizards. Following the completion of the survey, Meridian conferred with their various experts to determine the preferred approach for lizard management. This resulted in discussions between Meridian and DOC whereby Meridian agreed to establish a lizard fence around the northern stockpile.

16. Salvage had previously been discounted by Meridian as impractical given the sporadic nature of the rock armouring work, that is, given the uncertainty over when the armouring work is to be completed there could be a gap of months or even years between a salvage and the undertaking of the construction works, during which time lizards could repopulate the stockpile. However, with the implementation of a lizard fence, I understand that salvage is now practical. Details of this are included in the joint evidence of Mr Heggie-Grace and Mr Miller and in the updated LMP included with this response.

17. Further DOC suggest that a 35 year term is not appropriate given that the lizards could be reclassified over the term of the approval and have instead recommended a 10 year term. I disagree with DOC's position and note that the approval is sought in association with 4 specific species rather than lizards in general. Any changes to the conservation status of other species would trigger a new approval which Meridian would be required to obtain. In addition I note that while a 35 year term is sought, the actual works will take place over a much shorter period than that, thereby in approving the consent for 35 years

the Panel is not approving a consent that will result in effects that span 35 years, rather the duration of the works remains the same.

18. In their s53 comments, DOC request new conditions relating to a vegetation monitoring regime for wetland and plant communities. Having reviewed both DOC's s53 response and the accompanying evidence of Dr Susan Walker, I consider these conditions to be out of scope. Specifically, I note that they recommend monitoring of effects associated with the Normal Operating Range of the lake, which does not form part of this application. Furthermore, these conditions fail to acknowledge the Permitted Baseline or level of effects authorised via Plan Change 1 to the Waitaki Catchment Water Allocation Regional Plan (WAP). The effects of concern raised by Dr Walker are already authorised via the WAP and the resource consent Meridian holds for the operation of the infrastructure that controls the level of Lake Pūkaki within its normal operating range, and as such should not be subject to further conditions via this application.

Canterbury Regional Council

19. I am in general agreement with many of the points raised in the Canterbury Regional Council's (CRC) s53 comments. However, I do wish to draw the Panel's attention to the following matters of clarification.

    1.19.1 Paragraphs 43-46 discuss the potential requirement for an air discharge consent under the Canterbury Air Regional Plan (CARP) for discharges associated with lake lowering. CRC reach the conclusion that no such consent is required, which I consider is correct, however in paragraph 47 CRC provides an opportunity for the Panel to reach an alternative view. I considered this matter at the start of the project and determined that as dust propagation is an effect that primarily arises at the opposite end of the lake (the Tasman Delta) to the primary source of any dust (Pūkaki Dam works), that the discharge of dust from this area is part of a naturally occurring phenomenon that occurs when lake levels change and that it would not be possible to directly attribute any dust to the lake lowering activity. On this basis I determined that the activity did not result in a 'discharge' requiring consent under the CARP or NES AQ. Rather, consequential changes to air quality were an effect that required consideration under the lake lowering consent.

1.19.2 I therefore agree with the position of CRC noted in paragraph 46 of their s53 comments and do not believe that any further consideration of this matter by the Panel is necessary. I do however note that none of the parties identified as 'sensitive receptors' in the Air Quality Assessment, nor any other landowners around the lake have commented on the application. This reflects the conclusions reached in the assessments that any increase in scale and significance of dust effects will be small and for a short period of time.

1.19.3 I note that CRC's consultant air quality scientists have raised the question as to whether the NES AQ has been assessed and/or would be exceeded. As set out in the evidence of Mr Stacey *compliance with the NESAQ for PM10 was assessed as part of the Substantive Application, which concluded that the relevant criteria are met. The assessment indicates that any increase in off-site PM10 concentrations associated with lake lowering is modest in absolute terms, even where relative increases of up to 30% are predicted at some locations. This is consistent with the fact that substantial areas of the delta are already exposed under the current operating regime, and that lowering the lake to 513 m RL increases the exposed area by less than 20%. Given that a number of conditions must coincide for elevated dust concentrations to occur, including sustained low lake levels, drying of surface sediments, and sufficiently strong winds to entrain material, the likelihood of exceedances of the NES AQ for PM10 at receptor locations is likely to be low.* Based on this technical advice provided at the time the Referral and Substantive Applications were being prepared I concluded that no further consideration of the NES AQ was warranted.

1.19.4 In paragraph 49 CRC discuss the Permitted Baseline. They note that *in applying the permitted baseline, it would be reasonable for the Panel to adopt the environmental effects established as a permitted activity in the WAP - i.e. the operation of Lake Pūkaki down to 513 m RL during Declared Electricity Supply Emergencies. For this proposal, this means the effects of the duration the lake is operated within these levels when no Declared Electricity Supply Emergencies would likely have been declared should be considered as new.* While not necessarily clearly articulated, I believe that this paragraph seeks to

set out the agreed Permitted Baseline which is formed by the rules in the WAP allowing the operation of Lake Pūkaki down to 513 m RL. This being the operation of the lake below 518 m RL for a period of 4 to 7 months per event during declared electricity supply emergencies, as considered in Plan Change 1. The effects considered as part of this application should focus on those above and beyond those parameters.

1.19.5 Given the complexities and discretions that the System Operator currently retains in determining when an electricity supply emergency may or may not be declared, I consider it appropriate to only consider those effects beyond the frequency or duration of event anticipated by Plan Change 1 and ultimately the WAP.

1.19.6 In paragraph 99 and 101 CRC draws the Panel's attention to Policy F of the amended National Policy Statement for Renewable Electricity Generation, particularly subsections 1 and 5. These subsections direct decision makers to enable REG assets and activities in all locations and environments, however with respect to residual effects that cannot be avoided, remedied or mitigated, decision makers shall have regard to offsetting measures or environmental compensation including measures that benefit the local environment and community.

1.19.7 It is my view that any residual effects are sufficiently small both in terms of the extent and duration of effect that any offsetting measures or environmental compensation are not warranted. A monitoring agreement is already in place with DOC in relation to monitoring of Kaki/Black Stilt and *Isolepis basilaris* (which grows in wetland turfs) within the Tasman Delta. This requires Meridian to notify DOC when they are about to manage the lake below 518 m RL and to fund any monitoring of the local populations of Kaki/Black Stilt and *Isolepis basilaris* undertaken by DOC. It is my understanding that this agreement will continue.

1.19.8 In paragraph 107 and 108, CRC note that while they generally agree with Meridian's assessment of Chapter 5, 7 and 9 of the Regional Policy Statement, they consider that *a low effect should not warrant no management approach* and therefore this proposal is not consistent with these provisions. While I agree that at a principled level, low level

effects should not simply be ignored, any management approach to addressing such an effect must be considered in the context of the scale and duration of the effect as well as the practicalities and net benefits of the management approach proposed. In this case, based on the technical information I have reviewed in relation to this application, I consider that the low scale and short duration of the effects do not justify taking on the challenges associated with implementing an additional monitoring programme or similar in such a short period and the limited environmental benefits that could arise from that monitoring.

20. I have been involved in engagement with CRC regarding the consent conditions and have reviewed the revised set provided with their s53 comments. Where agreed, these have been incorporated into Version 3 of the conditions provided with the Applicant's response to comments. With regard to the conditions where there remains a more relevant disagreement I draw the Panel's attention to the following:

1.20.1 CRC262540 to take, use, dam or diver water for hydroelectricity generation. Condition 7 relates to the Kaki monitoring programme. As previously noted Meridian have an agreement with DOC whereby Meridian funds DOC to undertake this monitoring. I do not believe that additional monitoring is warranted, however I do consider it reasonable to require Meridian to provide details of that monitoring to ECan. Version 3 of the conditions includes revised wording for Kaki monitoring to that effect.

1.20.2 CRC262540 to take, use, dam or diver water for hydroelectricity generation. Condition 8 relates to monitoring of threatened and at risk flora. As noted in Mr Christensen's legal submissions, this monitoring is considered to be outside of the scope of this application, particularly in the context of the existing operational consents and the permitted baseline created by PC1. Furthermore, based on the technical evidence and having considered the low level of effects and short duration balanced against the practicalities and limited environmental benefits of such monitoring, from a planning perspective I do not consider a condition to this effect is justified.

1.20.3 CRC262540 to take, use, dam or diver water for hydroelectricity generation. Condition 10 relates to the management of dust via a Dust Management Plan. While a Dust Management Plan for lake lowering was previously suggested by Meridian, it has become apparent to me that this is not a suitable mechanism for the management of dust resulting from the lake lowering. Dust Management Plans are typically used to set out a range of dust management practices that can be implemented to mitigate adverse effects from dust beyond the site boundary. As discussed in the Substantive Application and in the evidence of Mr Stacey, there are no mitigation mechanisms available in this instance. The Dust Management Plan therefore becomes a document that simply sets out that Meridian will notify adjacent properties when the lake is forecast to drop below 518 m RL and that Meridian will keep a complaints register to record any dust complaints received during periods when the lake is below 518 m RL. Both of these can be effectively achieved via consent conditions as set out in the Version 3 Proposed conditions attached as part of the response package.

Genesis Energy Limited

21. I disagree with Genesis Energy Limited's (Genesis) position with respect to scope, which is that the Referral Application and s28 notice sought to lower the lake for 3 consecutive winters (2026, 2027 and 2028) however the Substantive Application does not limit the activity to winter. I note that the EPA issued a decision under section 46(1) of the Fast-track Approvals Act 2024 on 26 November 2025 confirming that in consideration of the completeness and scope requirements of section 46 of the Act, the Substantive Application complies with all of the requirements of section 46(2). This matter is discussed in detail by Mr Christensen in his legal submission. I note that in a colloquial sense and within the electricity industry the term dry winter is essentially a shorthand for a dry period, often but not exclusively, in winter.

22. Paragraph 12 of Genesis's evidence notes that Meridian's application does not mention rule 3(3) of the Waitaki Catchment Water Allocation Regional Plan (WAP) which provides for temporary lake lowering for the purposes of maintenance or rehabilitation. I can confirm that this rule has been considered in advice I have provided to Meridian. It is one of two examples where using

the range of Lake Pukaki is a permitted activity. I note however, in the context of the proposal I do not consider it appropriate to be used for the following reasons:

1.22.1 First, as part of this application Meridian are seeking to lower the lake below 518 m RL for electricity supply purposes, not primarily to enable the rock armouring works to occur. As noted in the legal submissions by Mr Christensen the primary purpose of the application is to enable eased access to water stored below 518mRL for electricity generation in the national interest over the next three years. The ability to undertake work on the dam structure during those periods, if they even arise, is circumstance dependent. Meridian is not seeking approvals to lower the lake level below 518, and thereby utilise valuable stored water, to undertake dam resilience work at times when that is not an efficient use of that water in the wholesale electricity market.

1.22.2 Paragraph 37 if Genesis's comments talks to the prohibited activity status of the activity and the fact that it is a status not lightly applied under the RMA. To understand the significance of this I have reviewed the Section 32 report for the WAP and the document titled *"Waitaki Catchment Water Allocation Regional Plan – Annex 1 Decision and principal reasons for adopting the Plan provisions.*

1.22.3 The s32 report only considers the prohibited activity status and does not consider the costs or benefits of potential alternative status. In the decisions document at paragraph 76[1] the Board concludes the following:

'Some submitters sought amendments to the rules so activities that do not comply with the environmental flow regimes or the allocations to activities are either discretionary or prohibited activities. The Board did not accept either alternative. The environmental level and flow regimes, and the allocations to activities, are two key components of the allocation framework established by this Plan. They should be binding except in specific cases where it can be established that the adverse environmental effects of the proposal are minor, and where the activity is not contrary to the objectives and policies of this Plan.

[1] *"Waitaki Catchment Water Allocation Regional Plan – Annex 1 – Decision and principal reasons for adopting the Plan provisions"*

The Board cannot be confident that such circumstances will never arise, so it did not make these prohibited activities[49]*. It retained the non-complying activity classification, which requires that one of those conditions be satisfied before such an application can be granted.'*

1.22.4 This conclusion raises the question as to whether the prohibited activity status in the WAP is in fact what the Board intended and whether the activity status should be non-complying. Regardless, I accept that as things currently stand the formal activity status is prohibited. I am of the view that this is a case where the adverse effects of the proposed activity are minor (or less than minor as is the conclusion in the Substantive Application) and that the activity is not contrary to the objectives or policies of the Plan. Clause 17(4) of Schedule 5 of the Act makes it clear that while prohibited activity status must be taken into account it is not a reason of itself to decline granting an approval. In my opinion the justification for prohibited activity status is weak and it does not lead me to the conclusion that granting the approval offends the objectives of the WAP.

1.22.5 I also recognise that there are two permitted activity rules that provide for drawing Lake Pūkaki below the minimum lake level of 518 mRL – rule 3(3) and 3(1). Furthermore, there is a discretionary activity rule 17 in the event of a SSA allowing use below 518 mRL. This gives me confidence that the prohibited activity status is not premised on a risk of unacceptable adverse effects.24.

23. Paragraph 39 of Genesis's comments refer to text included in the Version 2 suite of conditions. This text comes at the start of the lake lowering approval and states the following: *CONSENT SCOPE - Note: This consent relates to the operation of Lake Pūkaki below the normal minimum level of 518.0 m above mean sea level (m RL) (to a minimum of 513.0 m RL), during times of electricity shortage when not otherwise provided for as a permitted activity under the relevant Regional Plan or by a resource consent.*

24. Genesis argue that this is an advice note and should not be a substitute for clear enforceable conditions. Furthermore, they note that Meridian relies on the undefined 'electricity shortage' phrase. This *'Note'* was added by Meridian at the request of CRC to clarify the scope of the consent and how it interacts with other approvals. In CRC's revised conditions they have suggested

including the *'Note'* as Condition 1 with the following wording: *The consent holder may operate Lake Pūkaki below 518.0 m RL while taking, using, damming or diverting water in accordance with resource consents CRC905321.7 and CRC185833 or any subsequent replacements thereof. Advice note: this consent provides for the operation of Lake Pūkaki below 518.0 m RL outside of the scenarios provided for in resource consent CRC905321.7 or CRC185833 or any subsequent replacements thereof, and outside of the permitted activity provided for in Table 4 and Rule 17 of the Waitaki Catchment Water Allocation Regional Plan.*

25. I agree with the changes proposed by CRC and consider that they address the concerns raised by Genesis. Version 3 of the consent conditions has been updated to this effect. The advice note is intended to reflect that the other ways in which drawdown or utilisation of Lake Pūkaki below 518 m RL can occur will remain operative during the three years applicable to this application.

26. Finally, I have reviewed the evidence of Mr Grant Webby in relation to the Tekapo B Power Station Tailrace weir and rock chute. Mr Webby suggests that it would be prudent to apply the risk mitigation measures adopted previously as discussed in the Damwatch document. These measures relate to continued monitoring of the structure during any future operation, maintenance of stockpiles of rock riprap and gravel material to enable rapid repair of any damage to the structure and having suitable plant readily available to undertake these repairs. I have considered the appropriateness of including these requirements as conditions of consent, however I am conscious that the land and chute are owned by Genesis and work would only be able to be undertaken with their agreement. I understand that Meridian is open to further consideration of potential consent conditions via discussions with Genesis and/or the Panel. In the meantime, I have proposed conditions that would require Meridian to pay for a third party to undertake surveillance monitoring and to make rock riprap available, given that any period of first drawdown would coincide with work at Pūkaki Dam by Meridian.

Conclusion

27. Having considered the comments received I remain of the view that the approvals sought can be granted subject to the proposed conditions (as now amended), and that the resulting approvals will enable the project's benefits to be realised while ensuring that adverse impacts are managed appropriately.

Dated: 15 April 2026

Amy Callaghan