

17th April 2020

**SUBMISSION BY THE BLUECLIFFS BEACH LANDOWNERS GROUP (BBLG)**

The Chief Executive Officer, Environment Southland, Price Street, Waikiwi, Invercargill.

SUBMISSION TO ENVIRONMENT SOUTHLAND ON BEHALF OF THE BLUECLIFFS BEACH LANDOWNERS GROUP, ON AN APPLICATION FOR RESOURCE CONSENTS BY MERIDIAN ENERGY LTD (“THE PROPOSAL”)

The Bluecliffs Beach Landowners Group (BBLG) is a collective of 18 private landowners at Sections 31-51 being formerly SO6767 and Crown land Block 1 Alton Survey District, otherwise known as Bluecliffs Beach Settlement. The properties are a mixture of permanent residences and holiday homes. Currently, all of these properties are in serious danger of being eroded into the sea by the westward migration of the Lower Waiau rivermouth.

This submission is on the application by Meridian Energy Ltd [reference APP-20233670] for the following resource consents to authorise the following proposed activities:

1. A water permit under section 14 of the RMA to temporarily take, divert and use water to facilitate construction and maintenance activities, including within and in proximity to wetlands and for dewatering, dust suppression, and erosion and sediment control activities; and permanently divert surface water into the parallel channel.
2. A discharge permit under section 15 of the RMA to temporarily discharge water and suspended sediment to land and water (the Waiau Arm, Mararoa River and Lower Waiau River) for the purposes of facilitating construction and maintenance activities, including within and in proximity to wetlands and for dewatering, dust suppression, and erosion and sediment control activities.
3. Permits as required under regulation 47 of the National Environmental Standards for Freshwater (NES-F) for activities under sections 14 and 15 of the RMA, including those associated with vegetation clearance, earthworks and land disturbance, and the take, use, diversion and discharge of water, in and/or near a natural inland wetland

**Location:** At and around the Manapōuri Lake Control Structure, including the Waiau Arm at the confluence of the Waiau Arm and Mararoa River; at or about NZTM2000 1186068E 4935096N.

- The address for service for this submission is: Attn: Bill Chisholm, Chisholm Associates, PO Box 125, Manapouri 9643; email [bill@chisholm.co.nz](mailto:bill@chisholm.co.nz); Phone (027) 221 4739.
- THE SUBMITTER WOULD LIKE TO BE HEARD ON THIS SUBMISSION.
- The submitter wishes to be involved in any pre-hearing meeting that may be held for this application.
- A copy of this submission has been served on the applicant by email to: [kate.berkett@meridianenergy.co.nz](mailto:kate.berkett@meridianenergy.co.nz)
- The submitter is not a trade competitor for the purposes of Section 308B of the RMA.

- The submitter is directly affected by an effect as a result of the proposed activity in the application.
- This submission OPPOSES the grant of this consent, for the following reasons:

### **A. Context:**

The problem of accelerated erosion at Bluecliffs Beach Settlement (Bluecliffs) can be directly attributed to the alteration of the natural flow regime in the Lower Waiau River resulting from the operation of the Manapouri Power Scheme. The precise mechanism(s) by which this occurs are not well known, even after scientific and evidentiary studies. These studies, however, demonstrate that the processes causing the Bluecliffs erosion problem are related to the effects of the altered flow regime. They can be broadly categorised as follows:

#### **1. Significant alteration of the flow regime in the Lower Waiau**

In 1994, the Waiau Working Party engaged Dr Bob Kirk (a coastal geomorphologist) to assess the effects of the Manapouri Power Scheme on the Waiau River mouth. The report by Kirk and Shulmeister (1994) studied the processes which shape the movement and closure of the Waiau River mouth. It found that the most significant post-control hydrological changes affecting the river mouth system have been the substantial reduction in minimum flows in the river, and the reduction in flood flows. Lower flows had contributed to river mouth closure. However, the principal agent of river mouth closure was the combination of low flows and coastal onshore storms. Closure is most probable in the Autumn and late Winter, when these two events are most likely to coincide. River mouth movements have also reduced, and tended to move in a more westward direction in the post control period.

The findings of Kirk and Shulmeister (1994) are summarised in the subsequent ECNZ Assessment of Effects on the Environment (1996):

*Long-term adjustments in rivermouth processes as a result of changes in the catchment, including hydro development, will continue. These adjustment processes may take "... in the order of 50 years" although most of the change has already occurred.*

*No management action can reasonably be taken which will prevent the process of rivermouth adjustment or reverse the cycle of changes initiated by hydro-electric power development in 1969.*

This Assessment of Effects clearly implicates "the changes initiated by hydro-electric power development" as the causative factor in rivermouth changes. This conclusion is supported by a recent report by Tonkin & Taylor (McDowell 2024) which also states that the erosion at Bluecliffs is caused by a combination of river and coastal actions, with the Manapouri Hydro Scheme being acknowledged as a contributor.

The concern here is that further adjustments to the flow regime caused by the proposal will cause rivermouth processes to take another 50-years to reset.

#### **2. Reduction in sediment carrying capacity**

The significant reduction in flows in the Lower Waiau River has resulted in a correspondingly significant reduction in the river's ability to transport sediment of all fractions (from fine sediment to large cobbles/boulders) through the catchment to the river mouth. In essence, the river has been de-powered by the altered flow regime and this has led to circumstances culminating in the situation at Bluecliffs.

### **3. Reduction in sediment load**

Perhaps the most damaging potential effect of the proposal is the loss of sand and finer sediment to the Lower Waiau River system. Kirk and Shulemeister (1994) describe the effects of this:

*Sand loss would have a dramatic effect on mouth closure and opening because it affects percolation of water through the barrier beach. In turn this affects the head and the scouring power of the flows. It also influences the extent of mouth offsets under wave-driven longshore drift. Such textural changes are not known from other South Island River mouths though the effects of permeability are well established.*

Mabin (2009 - paragraph 85) in evidence to the hearing on the Manapouri Tailrace Amended Discharge Project summarised the potential effects of that proposal on coastal geomorphic processes at Te Wae Wae Bay:

*I consider that the main way in which the MTAD Regime could potentially affect the Te Wae Wae Bay coastal geomorphic environment is by reducing the volume of sediment delivered to the coast. This reduced volume of sediment could in turn lead to a change in beach sediment budgets such that coastal erosion occurs. This could cause:*

- a. Coastal barrier retreat or breaching;*
- b. Reduced or lost coastal lagoon environments; and*
- c. Cliff erosion.*

These statements explain that reduced sediment inputs into the Lower Waiau catchment cause an alteration of lagoon and coastal processes at the river mouth. They directly implicate this as one cause of the catastrophic erosion at Bluecliffs. The huge volume of sediment trapped upstream of the MLC (and which Meridian are now seeking consent to remove) is evidence that the operation of the MLC is adversely affecting sediment budgets down river.

In summary, regardless of the unknown coastal processes/mechanism(s) by which this occurs, the situation at Bluecliffs must be considered an adverse effect of the power scheme to be avoided, remedied or mitigated by the consent holder forthwith.

### **B. Submitter's reasons for opposition to the proposal**

Given the situation outlined above, and in the absence of any realistic mitigation, it is imperative that the flow and sediment regime in the Lower Waiau River is properly managed and enhanced towards a stable state, and towards its natural state, at every opportunity. Doing this will, at the very least, help prevent the Bluecliffs erosion problem from getting worse, which will in turn provide for more sustainable mitigation options.

The National Policy Statement for Freshwater (NPS-F) stresses the fundamental importance of water, and the concept of Te Mana o te Wai, which is “*about restoring and preserving the balance between water, the wider environment, and the community*”.

In this context, the proposal fails to achieve this test of the NPS-F (i.e. progression towards a stable, more natural state), and is therefore considered a retrograde step.

Specific concerns are as follows:

1. The proposal does not necessarily meet the S104(D) gateway tests for non-complying activities. Section 104D(1)(a) specifies that the adverse effects of the activities on the environment will be no more than minor. Despite the reports presented with the application, this is a subjective assessment largely based on the “temporary” nature of the works. The applicant has not considered the possibility for effects to occur much further down river, for up to 50 years. This is a glaring gap in their assessment. Furthermore, the applicant seeks a 35 year consent, so these works may not be as “temporary” as assessed in Section 7 of the AEE.

Section 104D(1)(b) specifies that the activities will not be contrary to the objectives and policies of the relevant plans. An assessment of this is provided in Section 9.5 and Appendix J of the AEE. The Appendix J assessment leans heavily on this application providing an “upgrade” of the power scheme operation. This is balanced against the actual and potential adverse effects of the proposed works (for 35 years) and thereby justified as meeting this gateway test.

The AEE describes the purpose of creating a second flow channel as “to facilitate the provision of flushing flows”, with difficulties with manipulating lake levels at times of low inflows being cited. However, the present situation is that the provision of flushing flows can be engineered at any time, providing lake levels are managed with this in mind. There is no absolute need to create the second channel at MLC, and the proposal appears to be more a matter of convenience than necessity.

2. Not all alternatives have been explored, as is the requirement of Schedule 4 of the RMA for activities that are likely to result in significant adverse effects on the environment. Other options include: 1) Increasing the minimum flow below the MLC to assist in transporting sediment through the MLC into the Lower Waiau River. This would also have the effect of moving the Lower Waiau River towards a more natural state. 2) Reduce the NTU limit at MLC so that less sediment-laden dirty water is diverted into the Waiau Reach. This would restore the sediment to the Lower Waiau River, and reduce the amount of sediment deposited in the Waiau Reach; thus reducing the need for ongoing dredging in this area.

3. The proposed disposal of sediment is unnatural. This sediment would have naturally flowed down the Lower Waiau River, and would have ultimately contributed to natural geohydrological processes at the rivermouth. The artificial upstream placement of this sediment on an intermittent wetland/paddock is an artificial stopgap measure which in no way mirrors natural processes. It is questionable whether this is sustainable in the long term.

4. The Assessment of Effects does not adequately assess or address all relevant matters of National Importance (s6), including:

- (a) The preservation of the natural character of the coastal environment, wetlands, and lakes and rivers and their margins;
- (b) The protection of outstanding natural features and landscapes from inappropriate use and development;
- (d) The maintenance and enhancement of public access to and along the coastal marine area, lakes and rivers;
- (h) The management of significant risks from natural hazards.

The impact the proposal will have on the existing environment and community at Bluecliffs is not explored by the applicant. Nor is it well-understood. It is therefore essential that the consent authority adopt a precautionary approach in making a decision on this application. The situation at Bluecliffs is an emergency, and the local Bluecliffs community is very concerned that the highly sensitive river mouth environment cannot handle any further stresses or change caused by man-made intervention up-river.

5. The 35-year consent period is excessive and does not match the description of the proposal and accompanying AEE, which states that the activities are “temporary”. It is submitted that the term of this consent, if granted (although that is not our preference), should be aligned with the term of the existing power scheme consents, which expire in 2031. This would better match the “temporary” nature of the proposed works, and allow for all adverse effects to be assessed in unison when the time arises in 2031.

**Relief sought:** The submitter would like this application APP-20233670 to be **declined** by Council.

Yours faithfully



Bill Chisholm

For: Bluecliffs Beach Landowners Group

**References:**

**ECNZ 1996.** Manapouri Hydroelectric Power Scheme Resource Consents Renewal Project. Assessment of Effects on the Environment.

Report prepared for Waiau Working Party and Environment Southland 1996.

**Kirk, R.M., Shulemeister, J. 1994.** Geomorphic Processes and Coastal Change in the Lagoon System, Lower Waiau River, Southland.

Report prepared for Waiau Working Party and Environment Southland 1996.

**Mabin, M.C.G. 2009.** Statement of Evidence of Mark Charles Grace Mabin on Behalf of Meridian Energy Limited Geomorphology 21 August 2009.

Statement of evidence to the hearing on the Manapouri Tailrace Amended Discharge Project. 2009.

**McDowell, B. 2024.** Bluecliffs Beach Road Papatotara, Southland. Preliminary Hazard and Geotechnical Assessment – October 2023.

Report to Southland District Council. Tonkin & Taylor Ltd. Job No. 1092596.0000