IN THE ENVIRONMENT COURT AT INVERCARGILL

I MUA I TE KOOTI TAIAO O AOTEAROA

IN THE MATTER Of the Resource Management Act 1991

AND of appeals under clause 14 of the First Schedule

of the Act

BETWEEN ARATIATIA LIVESTOCK LIMITED

(ENV-2018-CHC-29)

MERIDIAN ENERGY LIMITED

(ENV-2018-CHC-38)

FEDERATED FARMERS OF NEW ZEALAND

(ENV-2018-CHC-40)

TE RUNANGA O NGAI TAHU, HOKONUI RUNAKA, WAIHOPAI RUNAKA, TE RUNANGA

O AWARUA & TE RUNANGA O ORAKA

APARIMA

(ENV-2018-CHC-47)

AFFIDAVIT OF PAUL DAVID MARSHALL

Sworn this 3 day of Angust 2018

RW DONNELLY
PRESTON RUSSELL LAW
BARRISTERS AND SOLICITORS
45 YARROW STREET
BOX 355
DX YA90011
FAX 03 211 0079
PHONE 03 211 0080
INVERCARGILL

BETWEEN

ROYAL FOREST AND BIRD PROTECTION

SOCIETY OF NZ (ENV-2018-CHC-50)

Appellants

AND

SOUTHLAND REGIONAL COUNCIL

Respondent

I, PAUL DAVID MARSHALL of Tuatapere, Farmer swear:

 E rere kau mai ana te awa nui mai i te Kāhui Maunga ki Tangaroa. Ko au te awa, ko te awa ko au.

"The river flows from the mountains to the sea. I am the river, and the river is me."

- 2. The Waiau Rivercare Group (WRG) was formed on 7 June 2017.
- 3. I am a member of the WRG.
- 4. At the Group's inaugural meeting on 7 June 2017, I was elected Co-Chair of the Group.
- Peter James Horrell is also Co-Chair of the WRG. We both own land adjacent to the Waiau River.
- 6. The WRG does not have a constitution. However, as outlined in the WRG letter to the Southland Regional Council (the Council) dated 9 October 2017 (annexed and marked "A"), the primary focus of the WRG is to improve the health of the Lower Waiau River.
- 7. The WRG draws support from not only the Tuatapere Township, but also from the wider catchment from immediately below the Manapouri Lake Control (MLC) Structure at Mararoa to Te Wae Wae Bay.
- 8. The WRG was formed with financial assistance from the Council. The Council's Land Sustainability Team funded the production of 470 fliers and their distribution across the community ahead of the WRG inaugural meeting.

- The WRG is a Catchment Group member of the Southland Catchment Group Forum which meets quarterly. The WRG advocates on behalf of its community and the Waiau River.
- 10. On 9 October 2017 the WRG wrote to the Council highlighting some of the specific disadvantages our Community has experienced as a direct result of the operation of the Manapouri Power Scheme (MPS). The fundamental disadvantages stem from (what our community believes) is the over-allocation of the lower Waiau River, resulting from the MPS watertake.¹
- 11. Impacts our Community has suffered include:
 - 11.1. Significant loss of amenity;
 - 11.2. Reduced recreational values for example, my wife gathered Toheroa on the sands of Bluecliffs Beach as a child. Now, starved of its sediment supply, the Beach is a rock-strewn wasteland, and the fishery has collapsed;
 - 11.3. Reduced access to water for other uses for example the drinking water supply in Tuatapere, once pristine alpine water from the Waiau, is now taken from a series of bores, which require heavy chlorination, to the extent that some of our elderly decline to drink it;
 - 11.4. Erosion;
 - 11.5. Sedimentation; and
 - 11.6. Degraded water quality for example frequent periphyton infestation which impacts on trout fishing and the ability to swim in the river.

51-1-22-V2 V

The MPS watertake diverts approximately 500 cumecs to Deep Cove. The minimum consented flow through the MLC structure is 12-16 cumecs.

- 12. If the proceedings are unsuccessful, the ability for these effects to be meaningfully addressed during re-consenting of the MPS water take in 2031 will be essentially removed, and the impacts on our Community will continue unabated.
- 13. The 9 October Letter asserted that the "adverse impact of the Manapouri Power Scheme on our Community were little known beyond the Lower Waiau Catchment".
- 14. I believe the reasons for that lack of appreciation by the general public are that:
 - 14.1. While the "Save Manapouri" campaign in the late 1960's is widely acknowledged to be the birth of the Environmental Movement in New Zealand, the focus of the campaign was Lake Manapouri, not the Waiau River. If the effects on the lower Waiau were widely appreciated, I doubt 'Save Manapouri' would receive the kudos that it does.
 - 14.2. The magnitude of the MPS watertake is not generally appreciated. Importantly, few appreciate that unlike the vast majority of hydro-electric power schemes, which return waters to the river mainstem immediately post-generation, the MPS watertake is consumptive. The water consumed by the MPS is diverted from the Lower Waiau River and discharged into Doubtful Sound. Ministry for the Environment (MfE) data indicates that the MPS accounts for 60% of all freshwater consumption in New Zealand.2

Update of water allocation data and estimate of actual water use of consented takes 2009-10, Aqualinc for Ministry for the Environment 2010 lists the total consumptive take as 26,936 billion m³/year, and the Manapouri Power Scheme at 16,039 billion m³/year. More recent reports of this nature appear to exclude hydro-generation from the calculations on the basis that hydro is typically a non-consumptive use.

- 14.3. Despite the magnitude of this consumptive water take, it is seldom highlighted locally. For example, the Southland Regional Council's 2018-2028 Long Term Consultative Planning Document (LPTCPD) does not include the MPS watertake in its breakdown of freshwater use in Southland,³ nor does the LTPCPD acknowledge that the MPS water take is excluded from the breakdown. It is omitted entirely from the analysis, and thereby from the wider community's consciousness.
- 15. The 9 October Letter also makes plain the WRG's ongoing interest in resource management issues regarding the lower Waiau River. That letter outlines in detail the WRG's concerns about the proposed timeframes for implementing the NPSFM in our catchment, and the re-consenting process for the MPS water take. It also discusses the current MPS water take consent, and the role of the Regulator in dealing with erosion matters.
- 16. Further, the WRG has held three public meetings, on 7 June 2017 (notice of meeting **annexed** and marked "**B**"), 31 October 2017 (notice of meeting **annexed** and marked "**C**") and 30 April 2018 (notice of meeting **annexed** and marked "**D**"). At each of these meetings, Regional Council Staff or the Regional Council Chairperson have been present, and at each of these, resource management issues pertaining to the Waiau River have been discussed (as per the flyers/agendas for each meeting attached).

This has been confirmed by Council staff via a telephone conversation with Gavin O'Conner, 29/8/18.

- 17. My family has farmed on the banks of the Waiau River since 1966. In that time we have witnessed first-hand the change in the essential character of the River as a result of the MPS. If the appeals against the proceedings are unsuccessful, my ability to support my family will be impacted.
- 18. Access to water for irrigation during sustained dry periods would greatly enhance the resilience of our business. For example, as a result of the 2017-18 dry, our business suffered a loss of \$800,000.4 With climate change lapping at our heels this situation is only going to worsen over time. A controlled activity status for the MPS water take, combined with increased consideration of the MPS through objectives and policies essentially removes our ability to meaningfully contest the use of water from the Waiau upon reconsenting of the MPS watertake in 2031.
- 19. Further, the nutrient carrying capacity of the Waiau River has been significantly reduced because of the volume of water diverted by the MPS. I am concerned that, as a result of the proceedings, when this is addressed by the Regulator through limit setting, mitigation measures will be borne by our community alone. This will have direct impacts on the viability of farming businesses, and indirect impacts on the vitality of the Tuatapere Township, including the provision of essential services such as schools and medical care.

This dry was declared a medium scale adverse event by the Ministry of Primary Industries in Southland on 30 January 2018.

20. Water is an essential constraint on and enabler of agricultural production, and ultimately business profitability, resilience and value.

SWORN at Invercargill by the said PAUL DAVID MARSHALL

This 31st day of August 2018 before me:

A Solicitor of the High Court of New Zealand/Registrar/

Roseanna Elizabeth Welsh Solicitor Invercargill



Lower Waiau Rivercare Group

Our Community - A River Runs Through It.

Mr N. Horrell Chairman Environment Southland Private Bag 9840 SOUTHLAND

Email: service@es.govt.nz

CC.

Minister for the Environment Minister of Energy Parliament Buildings WELLINGTON

9 October 2017

Dear Nicol,

This is the annexure marked" A "referred to in the within affidavit of Paul David Markstall and sworn at INVERTARCILL this 31s day of August 2018 before me:

Deputy Registrar/Solicitor of the High Court of New Zealand

Roseanna Elizabeth Weisk Solicitor Invercargill

IMPLEMENTATION TIMEFRAME OF THE NPSFM WITHIN THE WAIAU CATCHMENT

We write to you in our capacities as co-Chairs of the Lower Waiau Rivercare Group. We have arranged to make a verbal presentation to the full Southland Regional Council as the first business item on the Council's 1 November 2017, meeting agenda.

Executive Summary

The Lower Waiau Rivercare Group is very concerned that the implementation of the NPSFM within the Waiau-Waiau Lagoon Freshwater Management Unit (FMU) will proceed without taking proper account of the significant and on-going adverse impacts of power generation on the Lower Waiau River. The resource consents for the Manapouri Power Station expire in 2031. Should the Waiau FMU process be completed by 2025, our Community alone will have borne the brunt of any limits imposed on land use. Were that to occur, the integrated management of the freshwater resource within the Waiau-Waiau Lagoon FMU, (which is central theme of both NPSFM and the proposed Southland Water and Land Plan (pSWLP)), will be defeated.

We outline however, how the NPSFM provides a mechanism through which integrated management within the Waiau FMU can be achieved.

In addition we highlight short comings in the management of flows introduced to the Lower Waiau River, by Meridian Energy Ltd, through its Manapouri Lake Control (MLC) structure at Mararoa. Those short comings have resulted in damage from erosion and downstream flooding, contrary to the operational requirements set out in the 1996 Waiau Agreement¹. We alert Council to the apparent failure of its General Manager to <u>direct</u> Meridian Energy Ltd to

"take ... precautionary measures ... to prevent damage from erosion likely to occur as a result of the exercise of the consent".

We request your Council to implement a suite of four specific recommendation which will address the matters we have raised.

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The Lower Waiau Rivercare Group

As you are aware, on June 7, 2017, the Lower Waiau Community came together to form a catchment group called the Lower Waiau Rivercare Group. The primary focus of the group is to improve the health of the Lower Waiau River. Our Group draws its membership from not only the Tuatapere Township but also from the wider catchment stretching from the Manapouri Lake Control (MLC) structure at Mararoa to the Te Wae Wae Lagoon.

Preamble

Outside our Community, the adverse impact of the Manapouri Power Scheme on the Lower Waiau catchment is little known. Our Community has the sense that the Te Wae Wae Lagoon is close to collapse, Blue Cliffs Beach has been stripped of its sand, and the Tuatapere's once pristine alpine water supply drawn from the Waiau, is tainted and heavily chlorinated to the point where some of our elderly decline to drink it. These, together with erosion and flooding are some of the adverse impacts that stem from the Power Scheme's reduced flow regimes through the MLC structure.

We are very concerned that the implementation of the National Policy Statement on Freshwater Management (NPSFM) within the Waiau-Waiau Lagoon Freshwater Management Unit (FMU) will proceed without taking proper account of these (and other) adverse impacts of power generation. The resource consents for the Manapouri Power Station expire in 2031. Should the Waiau FMU process be completed by 2025, our Community alone will have borne the brunt of any limits imposed on land use.

Proposed Southland Water and Land Plan (pSWLP)

On 16 August 2017, the Chairman of the pSWLP Hearing Panel ruled that a proposal that would have aligned (as far as possible) the NPSFM implementation timescale as it applies to the Waiau catchment, with any process concerning the renewal of resource consents governing the operation of the Manapouri Power Scheme beyond 2031, fell outside the scope of the Panel's brief. The Chairman, however, pointed out

¹ 1996 Agreement ECNZ, SRC, SFF, 8 November 1996 – Background 10(a) & (b) (Page2)

that such a proposal properly fell within the purview of the Southland Regional Council, three Councillors of which were present as Panel Commissioners. We are grateful for his guidance.

That direction is the genesis for this submission to Council.

Over-allocation and Integrated Management

We accept that the Manapouri Power Scheme is of national significance, but are concerned that adequate account has not been taken of the costs that that generation has imposed on our Community and on the ecosystems in the Lower Waiau River. The minimum consented flow through the MLC structure is a mere 3% of the water that, pre-control, flowed from Lake Manapouri down the Lower Waiau River to the sea, and is now diverted through the Power Station at West Arm, with tail race discharge to Doubtful Sound.

The essential character of the Lower Waiau River has changed from a stable, single stem river to, in many areas, a braided river with an unstable meander pattern over a substantial flood plain. **The Lower Waiau River is Meridian's spill way.** As a spillway, the Lower Waiau is integral to the operation of the Power Scheme. It is used by Meridian Energy Ltd (a 49% privately-owned corporation) to divert heavily sedimented flood flows to the sea. Every cubic meter of water discharged through the MLC structure results from a decision taken by Meridian.

We submit that the Lower Waiau River is over-allocated, within the meaning of that phrase set out in the Interpretation section of the NPSFM 2014.² The life-supporting capacity of the river below the MLC structure has been materially and adversely impacted by the hydrostatic modification which results solely from the operation of the Power Station. Our Community believes that the operation of the Power Station with its diversion of water to Doubtful Sound, has caused catastrophic damage to Blue Cliffs Beach and with it the collapse of the coastal ecosystems it once supported.

The Southland Regional Council is required to:

"safeguard the life-supporting capacity, ...(and) ...eco system processes ... of fresh water"³

and to give effect to the NPSFM Objectives having regard to, among other things,

"... the connections between freshwater bodies and coastal water"4.

We strongly support the integrated management of freshwater enshrined in Objective C1 of the National Policy Statement on Freshwater Management (NPSFM). We believe that the NPSFM default implementation date of 31 December 2025 (NPSFM Policy E1a) will mean that the adverse impacts of the Power Scheme will not be

² "Over-allocation" is the situation where the resource: a) has been allocated to users beyond a limit; or b) is being used to a point where a freshwater objective is no longer being met. This applies to both water quantity and quality.

³ RMA 1991, Section 69, and NPSFM Objective B1

⁴ NPSFM Policy B1(c)

considered because the resource consent for the Power Scheme does not expire before 2031.

Integrated management brings together all systems and processes into one complete framework⁵. In the Waiau context, this requires management of the resource in its entirety and must therefore include the full impact of the Manapouri Power Scheme on the Lower Waiau catchment. In practical terms, if this timing mismatch is allowed to stand, it will <u>defeat</u> the integrated management of the catchment's freshwater resource.

Alignment of those timeframes could be achieved by the Consent Holder petitioning Council to bring forward the date of expiry of the resource consents for the Power Scheme to 31 December 2025. That would be a matter for Meridian Energy Ltd, as a good corporate citizen, to consider.

Extension of the timeframe for catchment limit setting

The Southland Regional Council could achieve the alignment of timeframes by exercising the authority granted it under NPSFM itself:

NPSFM Policy E1 affords regional councils considerable latitude with respect to the setting of NPSFM timeframes for implementation. Specifically:

Policy E1(ba)

A regional council may extend the date in Policy E1 (b) to 31 December 2030 if it considers that:

- i. Meeting the (2025) date would result in lower quality planning: or
- ii. It would be impracticable for it to complete implementation of a policy by that date (2025)

The relevance of each part of Policy E1(ba) to the Waiau Catchment is discussed below:

Policy E1(ba)(i)

The quality of planning would be improved were the implementation date for the NPSFM within the Waiau Catchment to be extended to 31 December 2030, to allow matters pertaining to the Manapouri Power Station resource consents⁶ beyond their expiry in 2031, to be considered contemporaneously with the Waiau-Waiau Lagoon FMU process. The FMU process and the resource consent process are necessarily distinct, but much of the information required such as:

- Limit setting
- Allocation of the resource
- Flow regimes and their impact on eco systems within the Waiau River and particularly the Lower Waiau River

^{5&}quot;A catchment management approach is envisaged by the policy to manage the interactions between land and water. Policy C1 emphasises the need for integration between the management of land and water, as well as the coastal environment. Regional councils are the lead agencies and should use all mechanisms available under the RMA to achieve this." A guide to the National Policy Statement for Freshwater Management 2014 Part 5.7

⁶ There are current 35 resource consents which govern the operation of the Manapouri Power Scheme

will be common to both.

The alignment of the timeframes would allow Council, Meridian <u>and</u> our Community to work towards a common future for the Waiau catchment, focussing Council's planning resources on integrated, higher quality planning outcomes rather than doing essentially the same work, twice.

Policy E1(ba)(ii)

The resource consent for the Power Scheme expires in 2031. The implementation of:

- NPSFM Objective C1
- NPSFM Policy C1
- pWLP Policy 39a

all require the <u>integrated management</u> of the freshwater resource. Should the 2025 default completion date stand, the implementation of these provisions in the Waiau-Waiau Lagoon FMU, will become difficult to the point of being impracticable.

Under the default date, the focus would be solely on the impact of land use on a greatly reduced freshwater resource. It makes no sense to embark on catchment limit setting, without being able to consider the allocation of the total freshwater resource within the catchment. The vast majority of that resource is represented by the consented diversion of flow from the Lower Waiau by Meridian.

As a Community, we are clear that the integrated management of the freshwater resource within the Waiau catchment, will be best served by Council exercising the authority it has to extend the date for implementation of the NPSFM as it applies to the Waiau Catchment, from 31 December 2025 to the 31 December 2030.

Progressive Implementation Programme (PIP)

Policy E(1)(f) of the NPSFM (August 2017) requires Council to review, revise as necessary, formally adopt and notify its PIP by 31 December 2018.

This presents Council with a timely opportunity to review and to revise the PIP as it applies to the Waiau-Waiau Lagoon FMU to allow the NPSFM implementation date to be 31 December 2030.

The 1996 Waiau Agreement

The likely adverse impacts of the operation of the Power Scheme on farmland were foreseen in an agreement signed by the then Consent Holder, ECNZ, the Southland Regional Council and Southland Federated Farmers on 8 November 1996⁷.

Specifically:

"10. Where the land of any farmer contiguous with the Waiau River or one of its tributaries or the profitability of the farm formed by such land is detrimentally affected by erosion caused by the exercise of resource

⁷ The 1996 Waiau Agreement superseded the earlier "1973 Waiau Agreement".

consents held by ECNZ then ECNZ undertakes to negotiate in good faith with the landowner to find measures to mitigate and compensate the effects of such erosion on that farm"⁸

The same agreement⁹, also requires the General Manager of the Southland Regional Council to direct the Consent Holder to:

- (a) take ... precautionary measures ... to prevent damage from erosion likely to occur as a result of the exercise of the consent;
- (b) make such remedial repairs which the General Manager, Council, may require, to remedy damage from erosion which occurs as a result of the exercise of this permit.

The flow regimes introduced by Meridian through the MLC structure, create artificially rapid rise and fall of river levels during and immediately following high rainfall. Rising river levels water-log the river's banks. The subsequent rapid fall of river levels when the MLC structure gates are closed, means those sodden banks are no longer supported. The sodden banks, unable to support their own weight, collapse, delivering sediment and gravel to the river. In the absence of sustained flushing flows, the increased sediment load has allowed to choke the Te Wae Wae Lagoon and the gravel load has raised parts of the riverbed. Looking from the Tuatapere Bridge downstream, the gravel build-up from systematic and longstanding erosion upstream, is easily seen. Downstream flooding is the inevitable result.

Recent media coverage¹⁰ of flooding highlights one of many instances where we believe Meridian Energy Ltd (as the Consent Holder), has failed to meet its responsibilities under the 1996 agreement. That erosion has occurred (with resultant damage including downstream flooding) suggests that the Consent Holder may not have adopted sufficiently precautionary measures to prevent it. It also suggests that the General Manager of the Southland Regional Council has been remiss in not directing the Consent Holder to prevent damage from erosion.

Now that we have alerted Council to the provisions of the 1996 Waiau Agreement, our Community expects that Council's General Manager, will direct Meridian Energy Ltd, to adopt precautionary measures, henceforth.

Recommendations

The Lower Waiau Rivercare Group on behalf of our Community requests that the Southland Regional Council

- 1. notes our Community's view that the Lower Waiau River is overallocated.
- 2. <u>exercises</u> the authority granted to it under the NPSFM to align (so far as possible) the NPSFM implementation timetable in the Waiau-Waiau Lagoon FMU, with the timeframe for any consideration of renewal of resource consents associated with the Manapouri Power Scheme. This will require the:

^{8 1996} Agreement ECNZ, SRC, SFF, 8 November 1996 - Further Agreements 10 (Page7)

^{9 1996} Agreement ECNZ, SRC, SFF, 8 November 1996 – Background 10(a) & (b) (Page2)

¹⁰ Southland Times 25 September 2017 "Farmer Losing Land to Flooding" Page 1

- a. <u>extension</u> of the date for implementation of the NPSFM as it applies to the Waiau Catchment, from 31 December 2025 to the 31 December 2030 as permitted under Policy E1(ba).
- b. <u>amendment</u> of the Council's Progressive Implementation Plan for the NPSFM as it applies to the Waiau Catchment to be consistent with the revised timetable of 31 December 2030.
- 3. <u>notes</u> our Community's expectation that the General Manager, Council, shall henceforth <u>direct</u> Meridian Energy Ltd (as the consent holder) to take such precautionary measures to prevent damage from erosion (including flooding) and to conduct remedial repairs, in the Waiau River, pursuant to the 1996 Waiau Agreement.
- 4. <u>notes</u> our Community's intention to actively participate in the Waiau-Waiau Lagoon FMU catchment limit setting process.

Yours sincerely

Daudholl

Paul Marshall¹¹

Peter Horrell

Co-Chairs, Lower Waiau Rivercare Group

¹¹ Address for correspondence: Paul Marshall, 983 Lillburn Monowai Road, RD1 Tuatapere 9691, Southland// paul.marshall@farmside.co.nz // c: +64273067737

"B"

THE HEALTH OF OUR RIVER

Notice of a public meeting

When – 7pm, 7 June 2017

This is the annexure marked" B "referred to in the within affidavit of PAUL OAUM MRSTACL and sworn at INVERCARCIAL this 315th day of August 2016 before me:

Deputy Registrar/Solicitor of the High Court of New Zealand

Where - Waiau Hotel - Dining Room

Roseanna Elizabeth Welsh Solicitor Invercargill

Purpose – to gauge support for the formation of a COMMUNITY - WIDE **LOWER WAIAU RIVER CARE GROUP**.

This River Care Group would be a chance for the WHOLE COMMUNITY to influence the health of our River. To be successful the Group needs participation – from everyone. From

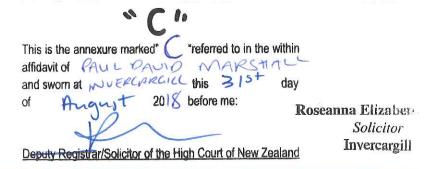
- towns folk
- schools
- Iwi
- whitebaiters
- fishermen

- jet boaters
- trampers
- swimmers
- farmers
- other businesses

You're all needed. Your views are important in forming our Community's view about the future of our River.

SIEZE THIS CHANCE TO MAKE A DIFFERENCE

Paul Marshall, 0273067737 Peter Horrell, 021461998



Waiau Rivercare Group

Notice of Meeting

Date:

31 October 2017

Time:

7:00pm - 9:00pm

Venue:

Lounge Bar, Waiau Hotel

Topics:

- 1. The Science of the River what we know and what we need to know. Nick Ward, ES
- 2. What your steering committee has been working on since we last met
- 3. The Rivercare Group's submission to ES on incorporating river flow regimes into the Water and Land Plan.
- 4. We hope to have the new MP for Clutha Southland present.

For details phone

Paul Marshall 0273067737 or Peter Horrell 021461998



Lower Waiau Rivercare Group

Our Community - A River Runs Through It.



Urgent Urgent Urgent

Notice of Meeting - 7:00 pm 30 April. Waiau Hotel Lounge Bar

The Environment Southland's Water & Land Plan has effectively guaranteed Meridian its current WATERTAKE and EXCLUDED our Community from the process.

The Plan has **MASSIVE** implications for the ecology of the River with **CATASTROPHIC** implications for the future of FARMING in this catchment and the Communities it supports. We have a chance of changing the decision through appeal to the Environment Court. Come to this meeting and find out what options we have.





Bring your Neighbours

This is the annexure marked" D "referred to in the within affidavit of PAUL DAVID MARSHALL and sworn at INVERCARCILL this 3 15th day

20 18 before me:

Deputy Registrar/Solicitor of the High Court of New Zealand

Roseanna Elizabeth Welsh Solicitor

Solicitor Invercargill