

Statement of Evidence of Buddy Mikaere

IN THE MATTER OF the Resource
Management Act 1991

AND

IN THE MATTER of various resource
consent applications to
irrigate land in the
Upper Waitaki
Catchment

BETWEEN Southdown Holdings
Limited, Five Rivers
Limited, Killermont
Station Ltd

AND Canterbury Regional
Council

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1. *Introduction*

1.1 My name is Buddy Mikaere. I am the principal of Buddy Mikaere and Associates, a consultancy specialising in tangata whenua consultation and cultural issues arising from development applications under the Resource Management Act 1991.

1.2 I appear here on behalf of Southdown Holdings Limited, Five Rivers Limited and Killermont Station Limited (“the applicants”). I confirm that I hold the qualifications and have the working experience as outlined in the curriculum vitae attached to this statement as Appendix 1.

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- 1.3 To expand briefly on the detail of Appendix 1 so as to give a wider picture of my background experience, I have also been involved in a number of projects within the Waitaki River catchment. These are Meridian Energy's North Bank Tunnel Concept project and the Hunter Downs Irrigation Scheme north of the Waitaki River. In the North Island I have been involved in irrigation schemes in Manawatu and Northland.
- 1.4 Apart from irrigation applications I have also been involved in a large number of projects involving water quality and environmental impacts from a cultural perspective. The main projects in this respect have been the Waikato River pipeline project and the South West interceptor project for Watercare, Auckland; the upgrade of the CBD wastewater system for Metrowater, Auckland; the upgrade of the Tauranga Wastewater treatment plant for the Tauranga City Council, Tauranga; the upgrade of the Whangamata Wastewater treatment plant for the Thames Coromandel District Council; Whangamata; the upgrade of the Blenheim Wastewater treatment plant for the Marlborough District Council, Blenheim; the upgrade of the Queenstown Wastewater plant for a private client, Queenstown.
- 1.5 Many of the other projects that I have been involved in from marina and subdivision developments to major infrastructure projects such as the construction of new prisons and landfills, all contain elements related to wastewater discharge and consequently have implications for water quality in respect of adjacent water bodies.
- 1.6 I should also mention that in 1982 my biography of the Ngai Tahu/Waitaha prophet Te Maiharoa; *Te Maiharoa and the Promised Land*, was a finalist in the New Zealand book awards. In undertaking the research for that book I became very familiar with the traditional Maori history of the Waitaki Valley and the Mackenzie basin.
- 1.7 I have drawn on my experience with all these projects in the preparation of this statement of evidence.
- 1.8 I am familiar with the code of Conduct for Expert Witnesses in the Environment Court Practice Note (31 March 2005). I have read and agree

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to comply with that code. Except where I state that I am relying upon the specified evidence of another person, my evidence in this statement is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinion that I express.

- 1.9 My evidence should be read in conjunction with the relevant sections of the evidence of John Kyle, Dr Greg Ryder, Dr Melissa Robson, Dr Ruth Goldsmith, Stephen Brown, Ian McIndoe, Richard Peacocke and Dr Ruth Bartlett.

Scope of Evidence and methodology

- 1.10 As set out in other expert evidence, the applicants seek consent for the abstraction of water for irrigation purposes and for necessary excavation and associated infrastructure works on four properties being:

- Killermont Station
- WHL Killermont
- Glen Eyrie Station
- Ohau Downs

- 1.11 I have been asked to prepare this statement of evidence on behalf of the applications made by these four farming entities with the objective of showing how the cultural issues that have been raised in opposing the applications for irrigation in the Mackenzie Basin by Te Runanga O Ngai Tahu ("TRONT") and the Ngai Tahu Mamoe Fisher People Incorporated, have been addressed.

Other considerations

- 1.12 Part of my task has also been to place these applications in a tangata whenua context, that is, to assess what is being proposed against relevant statutory provisions and planning documents that in recent years

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have been instrumental in establishing the Ngai Tahu position on the use of freshwater in the Mackenzie Basin and the Waitaki catchment.

- 1.13 In this respect I have considered the Ngai Tahu Settlement Act 1998 and the provisions in that legislation for the establishment of *topuni* – described as “very public symbols of Ngai Tahu mana and rangatiratanga over some of the most prominent landscape features and conservations areas in Te Waipounamu.”
- 1.14 The other important consideration from the Act for these applications has been the establishment of Statutory Acknowledgement Areas ("SAA") which represent formal recognition by the Crown of the special relationship of Ngai Tahu with identifiable areas in terms of their cultural, spiritual, historical and traditional associations.
- 1.15 For the purposes of this exercise I note that Lake Ohau in particular forms part of the SAA that encompasses the other Mackenzie Basin lakes of Takapo (Tekapo), Pukaki and Te Ao Marama (Lake Benmore). Two of the applications being considered here have the abstraction of water from Lake Ohau as part of their proposals.
- 1.16 The purpose of the SAA's is to ensure that Te Runanga O Ngai Tahu is informed when a development proposal may affect one of these areas and by requiring consent authorities (and therefore applicants) to have regard to these areas when making decisions on the identity of affected parties. This aspect has been complied with.
- 1.17 In conjunction with the *topuni* and SAA provisions I have also taken into account the relevant sections of the proposed Canterbury Natural Resources Regional Management Plan (Chapter 2 in particular); Te Whakatau Kaupapa (1990) which is a strategic document that sets out Ngai Tahu principles in the management of its relationship with natural and physical resources to these areas; and Te Runanga O Ngai Tahu Freshwater Policy (1999).
- 1.18 I note that the latter document has also been instrumental in setting the parameters of the Waitaki Catchment Water Allocation Regional Plan and has also contributed to the Canterbury Regional Policy Statement.

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- 1.19 I have referred to these latter documents in particular because I assume they reflect contemporary Ngai Tahu views on what is important to them in terms of cultural values and the obligations placed on them in taking responsibility for kaitiakitanga of the Mackenzie Basin and the Waitaki River catchment.
- 1.20 My finding is that these documents have provided a comprehensive picture of the potential Ngai Tahu issues and the applicable concepts and values that arise from the irrigation proposals and associated consent applications. Later in my evidence I set out the list of issues identified by the Mackenzie Water Research Limited Cultural Impact Assessment ("CIA") and I note a particularly close correspondence between those issues and the values and concerns set out in the Freshwater Policy document just mentioned.
- 1.21 In addition to the matters raised in those documents, this statement also follows the normal resource consent process by linking the issues to the overriding legislation by providing an analysis as to whether the applications are compliant with the "cultural" sections of the Resource Management Act 1991, Part 2 namely sections 6(e), 7(a) and 8.

Cultural Impact Assessment

- 1.22 As outlined in other evidence, the applicants form part of a group of applicants in the Mackenzie Basin seeking consents for irrigation. As such, the applicants were associated with the establishment of Mackenzie Water Research Limited ("MWRL").
- 1.23 MWRL was established to undertake a comprehensive research project looking at the impact of irrigation being applied to an additional 25,000 hectares of land in the Basin. The research specifically looked at water quality and environmental impacts and its outcome was captured in a report – the Water Quality Study ("WQS").
- 1.24 As part of that research a Cultural Impact Assessment was commissioned.¹ Input to the Assessment came from Te Runanga O Arowhenua, Te Runanga O Waihao, Te Runanga O Moeraki Te

¹ *Cultural Impact Assessment of New and Existing Irrigation in the Upper Waitaki*, Gail Tipa, February 2009.

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Runanga O Ngai Tahu. That document was attached to and formed part of the WQS report. A copy of the CIA document is attached to this statement as Appendix 2.

- 1.25 I should mention that I undertook a peer review of the CIA for MWRL and that task has assisted me in becoming familiar with the CIA content. (Attached as Appendix 3)
- 1.26 My evidence responds to the cultural issues as drawn from the CIA Assessment and from the opposing submission lodged by TRONT and as discussed at site meetings with Ngai Tahu representatives. All the relevant issues are listed later in this statement.
- 1.27 The responses are based on my background experience in dealing with these issues; through discussion with farm management and other experts engaged for these applications; a site visit to the applicant properties and an examination of relevant documentation including consultation meeting and site visit notes taken during the previously mentioned Ngai Tahu site visits.

Summary comment

- 1.28 For the reasons I shall outline in my evidence, my professional opinion, based on my review of the evidence of Dr Bright, Mr McIndoe, Dr Ryder, Dr Goldsmith and Dr Robson, is that through a combination of design features, avoidance, remedial and mitigation measures the applications for the four properties will not have an adverse effect on the Mackenzie Basin environment and catchment. It therefore follows that there will also be no adverse effect on cultural values and related concerns.
- 1.29 While the cultural values and issues are addressed here in broad detail there needs to be a mechanism to show how they will be addressed on the ground as part of the on-going operation of all the properties. This practical aspect is set out in the details of the relevant Farm Environment Management Plans (“FEMPs”) described in the evidence of Dr Robson.

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2. CONSULTATION

- 2.1 The normal starting point for the consideration of cultural issues is consultation. While not an RMA requirement, nevertheless good RMA practice recommends consultation.
- 2.2 In reviewing this aspect of the applications I found that consultation for these applications has been different to the usual process that I am familiar with in that the identification of cultural issues has been largely captured by way of the comprehensive CIA mentioned previously.
- 2.3 From what I know of the applications however this is not because there has been an attempt to avoid dealing with Ngai Tahu but I think it is rather a reflection of the logistics, for Ngai Tahu, of dealing with such a large number of applications contemporaneously.
- 2.4 As mentioned in the introduction to this statement of evidence, consultation on cultural matters commenced with the commissioning of the Water Quality Study as managed by MWRL. I note that the CIA that was commissioned by MWRL recommended applicant and tangata whenua consultation as did my peer review of that document.
- 2.5 All four properties took up that recommendation with invitations being issued to Ngai Tahu representatives to visit the properties.
- 2.6 Prior to those visits copies of all the documentation then available was supplied. The site visits took place earlier this year and apart from visiting various points of interest on the properties also involved on-site discussions with management and owners. The nature and outcomes from these visits are discussed in the evidence of Mr Peacocke.
- 2.7 Unfortunately, as at the time of the preparation of this evidence, follow up with the Ngai Tahu representatives on identified issues such as stock and effluent management has not produced any feedback.

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- 2.8 In any event I understand that all four properties are happy to discuss any aspect of their applications on request, in addition to the properties remaining open to access by Ngai Tahu if required.
- 2.9 As far as I am aware there is no complaint from Ngai Tahu in respect of an inadequacy or any failings in respect of consultation.
- 2.10 I was not involved in the on site consultation for the four properties but was involved in such consultation in respect of another application. The issues raised on that occasion are, apart from the geographical location change which brings an accompanying variation on particular issues, the same.
- 2.11 If the main intent of consultation is to ensure that the issues are identified, discussed and appropriate mitigation, remedial or avoidance action taken as a result, then the consultation has been successful.

3. CULTURAL ISSUES

- 3.1 I need to make some preliminary comments to place my evidence in context.
- 3.2 I note that while the issues identified in the CIA document are described as cultural by the assessment writer, in my opinion they are largely generic in scope, that is, they are basically the environmental issues that one would expect to find associated with irrigation applications.
- 3.3 I also note that the issues raised have a close correspondence with the concepts and principles outlined in other documents, the Canterbury Natural Resources Regional Management Plan and the TRONT Freshwater Policy document in particular, a factor that is very helpful in ensuring a good coverage of the issues.

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- 3.4 While there is obviously a cultural and heritage component to these environmental issues my belief is that the particular approach taken by the applicants in addressing them in a generic way is entirely appropriate. This is because the mitigation responses for example are the same regardless of the cultural or ethnic links of the issues concerned.
- 3.5 The other point to bear in mind is that the CIA is largely focused on issues concerning the Waitaki River. This is not surprising given that the entire Waitaki and Hakataramea River systems comprise a SAA.
- 3.6 However, none of the properties dealt with by me here draw water from or discharge water directly to, the Waitaki, and I have therefore excluded from consideration issues such as the impact on mahinga kai sites in the lower river.
- 3.7 The exception however is the issue of the impact on water quality given that the properties are all situated within the wider Waitaki River catchment and that irrigation water will, in time, find its way back into the system, largely through ground water.
- 3.8 I have also left aside the impact on flow levels and associated ecological implications within the lower Waitaki River given that below the Benmore Dam, river flows are controlled by the Waitaki hydro schemes and are therefore not influenced by the irrigation proposals considered here.
- 3.9 In summary, those issues² thought to be applicable to the four properties and which are obviously informed by the contents of the other documents such as the TRONT Freshwater Policy, examined by me, are:
- Ngai Tahu will only support plans to increase irrigation... if restoration plans for streams and wetlands are in place;
 - Smaller aquatic resources protection such as fencing, riparian planting etc. is required;
 - Efficiency of irrigation systems – spray irrigation is preferred;
 - Concerns about ecological impact of water diversion for irrigation – fish passage;

² The Cultural values and impacts are set out on pages 46-60 of the CIA document.

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- Concerns about disruption to natural flows and impact on customary fisheries, native fish species and invertebrate populations;
- Concern for the deterioration of downstream river reaches;
- Concerns about use of irrigation to enable dairy farm conversions – cultural health of waterways and loss of access by tangata whenua to mahinga kai sites;
- Impact on small streams, lakes, lagoons, tarns as a result of reduced flows, obstruction of migratory pathways, habitat destruction, use of agrichemicals and access rights;
- Cumulative effect – potential for serious ecological imbalances;
- Clearance and replacement of native vegetation;
- Construction of irrigation infrastructure – potential to destroy sites;
- Displacement of place names;
- Water quantity issues and the link to *mauri*;
- Excessive water abstraction;
- Lowering of water tables;
- Degradation of water quality;
- Stock access;
- Mixing of waters from different catchments;
- Collaborative opportunities;
- Modification and destruction of waahi tapu;
- Modifications to waterways and resultant loss of habitat;
- Changing land use – loss of habitat;
- Loss of opportunity to participate; and
- Access

Responses

FEMPs

- 3.10 Before discussing the applicants' response to these issues I need to stress the cultural importance of the Farm Environment Management Plans in the consideration of these applications.

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- 3.11 These plans form the delivery mechanism for the various remedial, mitigation and avoidance proposals discussed by other experts in terms of their specialist fields.
- 3.10 The importance of the FEMPs in cultural terms is that they provide a guide to the management of the farms so as to achieve compliance with not just environmental good practice but in their focus on sustainability align with the cultural holistic view that constitutes the Maori perspective on the natural world.
- 3.11 Fortunately the close correspondence between generic environmental issues and specific Maori values such as the concern for water quality, in-stream ecology, fisheries and the restoration and enhancement of the environment where possible are, through the FEMPs, able to be implemented as part of the normal daily routine of farm management.

Restoration plans for streams and wetlands/ smaller aquatic resources protection such as fencing, riparian planting etc. is required

- 3.12 To varying degrees all the properties have stream or wetland features with the slight exception of WHL Killermont which has a 400 metre long portion of Manuka stream running across the southwest corner of the property and the Tara Hills race which bisects the property. Manuka Stream is ephemeral and normally runs only in flood conditions.
- 3.13 All the properties have identified the location of wetlands and water courses and have in place plans to undertake riparian planting and for the waterways to be fenced for stock exclusion purposes with 5m setbacks. The exception to these setbacks is the artificial Tara Hills race which will have a 3m setback.
- 3.14 Dr Bartlett provides a summary of the extent of the riparian planting associated with each of the applications and its ecological significance. The ecological significance is discussed in the evidence of Dr Ryder while the practicalities of and reasons for implementing these riparian margins are included in the FEMPs as discussed in the evidence of Dr Robson.

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Efficiency of irrigation systems – spray irrigation is preferred

- 3.15 All the properties plan to use pivots and spray irrigation. I note that the evidence of Mr McIndoe concludes that the proposed use of water will be “efficient” and this question is examined in more detail in his evidence.
- 3.16 The exception to this is the irrigation of the Pebbly Block on Killermont Station, where because of environmental and landscape reasons it is thought a K-line system would be more suitable. Nevertheless I understand from Mr McIndoe that all irrigation will meet all the efficiency requirements of the WWAP.

Concerns about ecological impact of water diversion for irrigation – fish passage

- 3.17 Dr Ryder and Dr Goldsmith's evidence addresses this issue. I note that the proposed abstraction method in all cases ensures that there is no impact on fish passage or fish life in general. Again, details of the individual intake structures are set out in the evidence of Mr McIndoe but these consist of a mixture of conventional intakes utilising fish exclusion screens that conform to NIWA recommended guidelines (Killermont Station – Frosty Gully); and buried infiltration galleries which present a low ecological impact and certainly provide no obstruction to fish passage within the waterways concerned.
- 3.18 As explained in the evidence of Dr Ryder Dr Goldsmith and Mr McIndoe, the galleries in particular are seen as being effective at safely excluding a wide range of fish sizes, adults and juveniles, and the impact on fisheries is therefore considered to be less than minor.
- 3.19 Alternatively, I understand that in the event that the Committee does not approve use of gallery intakes, conventional intake structures are proposed. While these are less preferable in environmental terms I am advised that the effects on fisheries will not be significant as discussed in the evidence of Dr Ryder.

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- 3.20 It is noted that the applications in respect of Killermont Station involve a renewal of an existing take at Frosty Gully while the use of the existing Tara Hills water race on WHL Killermont is proposed with no infrastructure changes.

Concerns about disruption to natural flows and impact on customary fisheries, native fish species and invertebrate populations

- 3.21 This point is also covered in the evidence of Dr Ryder, Dr Goldsmith and Mr McIndoe. It is noted that there has been no indication that the waterbodies from which irrigation water will be taken are still used as mahinga kai or customary fisheries. It is clear however that in the past this has been the case, for example in the Ahuriri River and Lake Ohau. According to Dr Ryder Lake Ohau contains some long-fin eel but these constitute an ageing population and are thought to pre-date the construction of the various hydro dams on the Waitaki.
- 3.22 In the absence of any firm information in respect of customary fisheries or mahinga kai in the water bodies from which irrigation water will be abstracted I have applied the considerations used in respect of fish and game concerns. "Harvestable" fish species such as trout are certainly found in Lake Ohau and the Ahuriri River which is an important angling destination.
- 3.23 DOC surveys and a survey by Dr Goldsmith also report brown trout in the lower reaches of the Manuka Stream and it is assumed that the fish access that waterway from the Omarama stream when the depth and volume of water permits.
- 3.24 In these circumstances and based on available information, the impact on customary fisheries is adjudged to be less than minor. The impact on native fish species and invertebrates is addressed in the evidence of Dr Ryder. These are also assessed as being less than minor.

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Concern for the deterioration of downstream river reaches

- 3.25 The assumption is that the underlying concern is for the pollution of waterways downstream from the Mackenzie Basin. For all the properties there is no direct discharge into waterways as confirmed in the evidence of Ian McIndoe. Some water will, of course, make its way into the Waitaki hydrological system via groundwater and the implications that this has for water quality and in-stream values are dealt with in Dr Ryder's evidence.
- 3.26 But there is no expectation that there will be a contribution to the deterioration of downstream river reaches with the applicant properties as the source. In fact the evidence of Dr Bartlett and Dr Ryder strongly suggests that with the implementation of various water quality protection methods, the overall effect will be an enhancement over the current status quo.
- 3.27 All takes in relation to the Ahuriri River conform to water conservation requirements and therefore secure the ecological values of the river.

Concerns about use of irrigation to enable dairy farm conversions – cultural health of waterways and loss of access by tangata whenua to mahinga kai sites

- 3.28 Conversion to dairy farms applies to three of the properties, the exception being Killermont Station which will maintain a stocking regime of sheep, deer and beef.
- 3.29 Because of the nature of dairy farming the assumption is that the concern is about the potential for pollution of the waterways from dairying activities and the impact this might have on cultural values such as fisheries, mahinga kai and the overall mauri, the spiritual and physical health of the waterways.
- 3.30 Much thought has gone into the maintenance of the health of waterways associated with the properties or adjacent to them. Two of the protective mechanisms have already been mentioned by me i.e. riparian strip planting and fencing with 5m setbacks. In addition there are 20m set backs for irrigation of effluent from any bore, soak hole, surface

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waterbody or artificial watercourse in any location where it may run-off and enter ground or surface water, or on frozen or snow-covered ground and most significantly, in a major departure from traditional dairying in this country cows will be housed inside cubicle stables for eight months of the year and up to 50% of the time during the remaining four months.

3.31 Apart from the riparian strip measures, with this method of dairy farming the potential for waterways pollution from animal manure on pastures is significantly reduced. The evidence of Mr McIndoe among others, describes how animal wastes will be stored and handled in the cubicle stables and subsequently applied to the land via irrigation in a controlled manner at volumes that will not overload the absorption ability of pasture land. Irrigation containing effluent will not be applied within 20m of any water course.

3.32 By these means the cultural health of waterways will not be compromised.

3.33 Access to mahinga kai sites firstly requires the identification of where those sites are located. Upon that information being recorded there is no reason why, despite the conversions to dairy farming, that access for cultural purposes cannot be established by arrangement between landowner and Ngai Tahu. I note that the CIA and site visits did not reveal any mahinga kai locations on the four properties.

Impact on small streams, lakes, lagoons, tarns as a result of reduced flows, obstruction of migratory pathways, habitat destruction, use of agrichemicals and access rights

3.34 The ecological effects arising from this issue are dealt with in the evidence of Dr Ryder, Dr Goldsmith and Dr Bartlett and partly in the evidence of Ian McIndoe. Implementation mitigation details are set out in the relevant FEMPs discussed in the evidence of Dr Robson.

3.35 The FEMPs detail includes a description of the recommended regime for the application of fertilisers so as not to contribute to raised nitrate or phosphate levels in groundwater and subsequently, waterways.

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- 3.36 As previously discussed, none of the properties are averse to allowing access for cultural reasons provided the normal courtesies of contacting property management and making mutually convenient arrangements are observed.

Cumulative effect – potential for serious ecological imbalances

- 3.37 This matter is dealt with in the evidence of Dr Ryder, Dr Goldsmith and Dr Bartlett and also commented upon in the expert evidence presented on behalf of MWRL including appropriate commentary from the Water Quality Study. The conclusion is that there will be no serious ecological imbalances as a result of the proposed water abstraction and irrigation.

Clearance and replacement of native vegetation

- 3.38 As noted by Dr Bartlett in her evidence all the properties have been farmed for some considerable time and there is little remaining native vegetation. Some minor clearance of matagouri (matakoura) is proposed in respect of the Manuka Stream infrastructure on Killermont Station.
- 3.39 No other clearances are envisaged although on Glen Eyrie Station a major wildling pine clearance effort is all but complete. It is understood that riparian strips will be planted and maintained with native species while remnant native vegetation such as tussock is expected to recover where stock exclusion fencing is put in place. This matter is discussed further in the evidence of Dr Bartlett and Mr Kyle and addressed in an appropriate consent condition.

Construction of irrigation infrastructure – potential to destroy sites

- 3.40 No issues with the placement of irrigation infrastructure were indicated during site visits to the properties by the Ngai Tahu representatives and none are identified in the CIA.

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3.41 In respect of the WHL Killermont application³ for the installation and maintenance of an intake and a discharge structure on the Ahuriri River the Officer's Report identifies a "Moa-Hunter Camp located 300 metres southeast of the proposed location of the works" and comments that while "...it is unlikely that the proposed works will effect this site, it is possible that other sites, presently unidentified, may exist in the area." The report sensibly recommends that an accidental discovery of wahi tapu and wahi taonga is attached to this consent.

3.42 It is noted that all the properties have already agreed to a consent condition requiring that an accidental discovery protocol be put in place and the proposed protocol document is attached to the evidence of Mr Kyle.

Displacement of place names

3.43 While not a matter of direct relevance to these proceedings I understand that all the properties are willing to discuss and consider the use of former place names with tangata whenua.

Water quantity issues and the link to mauri

3.44 This issue is largely dealt with in other expert evidence (particularly that of Mr McIndoe, Dr Goldsmith and Dr Ryder) in terms of the volumes of water extracted. While there is some debate about the proposed water volumes in association with the abstraction from Lake Ohau for Ohau Downs and Glen Eyrie station my understanding is that the expectation is that the volumes applied for fit within the relevant criteria and the effect on lake levels is less than minor.

3.45 The position in respect of the proposed abstractions from the Ahuriri River and Frosty Gully and Manuka Streams is similar with the volumes applied for being sustainable and the impact of the takes is characterised as being less than minor.

³ CRC041787, CRC073112 and CRC073113.

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3.46 I note that the focus of the WQS document was on the preservation of the water resource and Mr Kyle's evidence confirms that the requirements of the established regime will be achieved.

Mauri

3.47 There are two aspects to mauri, the tangible and the intangible. My view is that the tangibles are able to be addressed if mauri is considered as representing the health of the particular water body in question. Using the term health in this respect is a simple (though not definitive) way of expressing the mauri concept.⁴

3.48 On this basis it follows that if it can be demonstrated that as a result of the activity there is no impact on the health of the overall environment (and this would encompass Maori cultural values), or better still, that the water resource is enhanced, then logically it can be said that the mauri is not affected.

3.49 The second aspect, the spiritual, is not something that the applicants or in my opinion this forum, is able to address satisfactorily. How a Maori person might regard their ancestral links and responsibilities to the land is highly personal and the protection or preservation of the spirituality that underpins this viewpoint, the intangible nature of the mauri concept makes provision difficult.

3.50 In my experience the best practical approach has been to ensure that the physical aspects are properly addressed and if the impact of these aspects is mitigated to the point where the outcome is either neutral or represents an enhancement then that is the best outcome that can be achieved.

3.51 This approach is largely confirmed in the TRONT Freshwater policy which explains that:

⁴ In note that in its recently released interim decision *C 80/2009 Lower Waitaki River Management Society Inc v Canterbury Regional Council and Meridian Energy Ltd* page 53 section 2.12 paragraph 117 the Environment Court accepted this proposition.

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Sustaining the mauri of a water body requires management of water bodies that:

- Protects the water's capacity to renew its groundwater and surface water flows and stocks;
- Sustains habitats, breeding, food sources and migratory requirements of mahinga kai species such as eels, flax and watercress, in their freshwater and coastal environments;
- Provides seasonal flow variability via a range of flows including seasonal floods of different magnitudes;
- Protects the exchange of freshwater and seawater at the mouth, maintains freshwater flows in estuaries, and prevents the unnatural closing of a river mouth;
- Prohibits the unnatural mixing of water from different bodies.

3.52 Except for the last two criteria, my view is that the four applications are in compliance and therefore the impact on mauri is properly addressed.

3.53 I also note that in the Environment Court's interim decision *Lower Waitaki River Management Society Inc v Canterbury Regional Council and Meridian Energy Ltd* C 80/2009 at section 6.2.4 paragraph 473 it is suggested that "...where physical effects are largely remedied or mitigated and improvements to the physical function, form, resilience and remaining integrity of the river are likely to be improved ... we trust that the benefits for the mauri will outweigh the adverse effects".

3.54 While the volume of water to be abstracted by the irrigation proposals is not comparable to what is proposed in the case of the Lower Waitaki, I think that the points made by the Court in respect of the mauri issue are directly comparable in the present case.

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Excessive water abstraction

- 3.56 This issue is dealt with in the evidence of Mr McIndoe. As is apparent from that evidence, the volumes sought by the applicants is not considered excessive and the volumes applied for have been done so in the expectation that they meet present allocation criteria.

Lowering of water tables

- 3.57 The irrigation water supply for all the properties is sourced from rivers, streams and lakes and accordingly the effect on groundwater is very unlikely to be a reduction in ground water level. This issue is discussed in the evidence of Mr Bright. It is considered that the only possibility of a lowering of water tables might result from the taking of all of a particular water source but that is not the case with these applications.

Degradation of water quality

- 3.58 There are several aspects to this issue. As mentioned earlier in my evidence a number of measures are to be put in place by way of consent conditions and in the FEMPs that will address the effects on water quality as being less than minor and, in the opinion of Dr Ryder and Dr Goldsmith, enhanced in some cases.
- 3.59 The best example is Glen Eyrie Station and Ohau Downs where waterways on the properties are presently open to stock and therefore subject to contamination from animal wastes.

Stock access

- 3.60 This issue has also already been dealt with me earlier in my evidence and is further explained in the evidence of Dr Ryder, Dr Goldsmith and Dr Bartlett. However all waterways on the properties are to be subject to stock exclusion fencing with a minimum 5m set back. The exception is the artificial Tara Hills race on WHL Killermont which will have a 3m setback. These measures constitute an improvement to the status quo and means that the issue is fully addressed.

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Mixing of waters from different catchments

- 3.61 All the water is drawn from the same catchments and used on properties adjacent to the various water sources concerned. There is therefore no mixing of waters from different catchments in any of the applications and the mixing of water is not an issue.

Collaborative opportunities

- 3.62 I am advised that the applicant would welcome opportunities to work with tangata whenua. In saying that I note that this is not of direct relevance to how the sustainable management matters under consideration here are being addressed. My view is that the initiative is with Ngai Tahu to respond to proposals set out in the documentation that has already been provided by the applicants and it strikes me that this could form the basis for the establishment of a longer term relationship beyond these applications.

Modification and destruction of waahi tapu

- 3.62 As previously mentioned, no wahi tapu have been identified on any of the four properties and none were identified during the site visits. Therefore this is not an issue. As a precautionary matter however an accidental discovery protocol as a condition of consent is recommended and as previously noted, is attached to the evidence of Mr Kyle.

Modifications to waterways and resultant loss of habitat

- 3.63 In general, except for the riparian planting and installation of intakes there are no major proposed modifications to waterways. However as discussed in the evidence of Dr Ryder, Dr Goldsmith and Mr McIndoe among others, irrigation will remove the need for two artificial waterways on the Ohau Downs property. These are the two races that have their origins in the Six Mile and Wairepo Creeks with water from the races eventually re-entering the Wairepo.

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- 3.64 Closing the races and restoring the flows to the two creeks will result in a loss of habitat for macroinvertebrate and fish communities within both water races but the loss of aquatic habitat can be offset by improving stream habitat through protection and enhancement of riparian margins.
- 3.65 An attempt is to be made to catch and transfer any fish present in the races prior to dewatering. Any such transfer is to be undertaken in consultation with Fish and Game and DOC. The Ngai Tahu representatives visiting the site expressed a desire to be involved in that work.
- 3.66 The in-stream works required by the applications in terms of establishing intake points will not result in habitat loss.

Changing land use – loss of habitat

- 3.67 The basic use of the land for farming purposes will continue. There is no proposed expansion of the properties that would result in the loss of further habitat. However the proposed riparian strip planting may, in time, provide habitat for birds.
- 3.68 There is a concern that the Department of Conservation's Wairepo Kettlehole reserve which is surrounded by the Glen Eyrie Station property will become a refuge for nuisance species such as Canada geese and that local predators will switch from rabbits to birds. The evidence of Dr Ryder, Dr Goldsmith and Dr Bartlett provides more detail on this aspect.
- 3.69 Conceivably fitting with this issue is the proposal to close the historic water race diversions which have their origins in Six Mile and Wairepo Creeks with a potential loss of habitat. The restoration of the flows to the natural beds and the enhancement, and habitat expansion offered by the proposed riparian planting should compensate.

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Loss of opportunity to participate

- 3.70 As with paragraph above dealing with collaborative opportunities the initiative on this issue lies with Ngai Tahu. However the applicants have encouraged participation and have confirmed on more than one occasion that they would like to engage further.

Access

- 3.71 I have dealt with the access question at several points earlier in my evidence. It is noted that at the time of writing this evidence, no wahi tapu, wahi taonga or mahinga kai sites have been identified on the properties. As indicated earlier, there is no applicant objection to access for cultural purposes as long as normal courtesies are observed.

4. ISSUES FROM THE TRONT SUBMISSIONS

- 4.1 I list here the issues extracted from the TRONT submissions:
- Mixing of waters between catchments;
 - Any deterioration to the quality of water in the mainstem and the tributaries of the Waitaki;
 - Any deterioration to the quality of water in the streams, rivers and lakes of South Canterbury and North/Central Otago;
 - Unnatural changes to the sediment flow and patterns of deposition in the main river channel and at the coastal area;
 - Any encroachment of adjacent land uses onto the Waitaki riverbed;
 - The residual flow regime in the mainstem resulting in extended periods of low flows with limited flow fluctuations;
 - A residual flow regime in the Waitaki River that fails to recognise the property interests and customary rights of Ngai Tahu;
 - Any further dewatering or loss of tributaries, wetlands, side braids, springs, backwaters, adjacent to or surrounding mahinga kai sites throughout the catchment;

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- Any desecration of urupa or loss of rock art within the catchment;
- Any further loss of access to sites of significance, especially remaining mahinga kai sites;
- Any further loss of mahinga kai habitats and mahinga kai species in either the Waitaki River or any of its surrounding tributaries;
- Any additional modification of the cultural landscape of the Waitaki catchment; and
- Any loss of wahi tapu and wahi taonga.

4.2 It is noted that as with the CIA most of these issues relate directly to the Waitaki River and, as explained earlier, are therefore outside the scope of these applications. Those that might be applicable such as loss of mahinga kai sites and wahi tapu have already been dealt with earlier in my evidence.

4.3 In terms of modifications to the cultural landscape the changes will be limited to the pivot irrigation systems and discreetly sited pumping stations. Further comment on landscape impact appears in the evidence of Dr Bartlett and Mr Brown.

4.4 In addition to these issues the TRONT submission also raises section 5(2)(a) of Part 2 of the RMA concerns. My view is that the proposals surrounding these applications have the sustainability of natural and physical resources to meet future needs as an underlying objective.

5. OTHER SUBMISSIONS

5.1 Two opposing submissions which were asserted to be “cultural” in nature were lodged by :

- New Zealand Federation of United Seafoods Inc; and
- Ngai Tahu Mamoe Fisher People Inc. (“the Confederation”).

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- 5.2 My understanding is that the New Zealand Federation has subsequently been liquidated and subsumed into the Confederation.
- 5.3 The issues raised by the Confederation relate to their contention that the Regional Council, Environment Canterbury, does not have the right to issue consents and various aboriginal and customary use rights through descent or under Article 2 of the Treaty of Waitangi.
- 5.4 The submission is also based on a claim to the ownership of all water, river, stream, and lake-beds, foreshores, sea-bed, sea fish and shellfish, as contained within the boundaries of the Canterbury Purchase Block of 1848.
- 5.5 In my opinion these are matters outside the scope of this forum, demonstrate a fundamental misunderstanding of this resource consent application process and should be set aside for that reason.

6. COMPLIANCE WITH PART 2 MATTERS

- 6.1 Sections 6(e), 7(a) and 8 of Part 2 of the RMA are normally regarded as the “cultural” sections. My view is that all four applicants are in compliance with these sections of the RMA.
- 6.2 For section 6(e) the commissioning of the CIA has recognised and provided for the relationship of Ngai Tahu with their ancestral lands and waters. In the same way regard for the 7(a) kaitiakitanga principles is addressed through the same CIA mechanism, through a consideration of the relevant Ngai Tahu policy documents and through on site discussions with Ngai Tahu representatives. The insertion into the relevant consent conditions and the FEMPs of appropriate mitigation gives kaitiakitanga a physical expression.
- 6.3 As far as Treaty principles are concerned (section 8) these are dealt with through consultation (the principle of partnership) with Ngai Tahu (the principle of the active protection of rangatiratanga) and through the imposition of appropriate consent conditions and the implementation of

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Farm Environment Management plans which allows use of the water resource without impinging on the cultural values held by Ngai Tahu (the principle of mutual benefit).

- 6.4 The applicants are not the Crown so the full gamut of Treaty principles does not apply in this case.

7. WAITAKI CATCHMENT WATER ALLOCATION PLAN – RELEVANT POLICIES

- 7.1 The applicable “cultural” policies of the WCWAP, and which have been taken into consideration as part of these applications, are Policies 4, 11 and 32.

- 7.2 Policy 4 requires that in setting environmental flow and level regimes mauri, mahinga kai species, wahi tapu sites and wahi taonga sites (e.g. rock art sites or urupa) are considered. As set out earlier in my evidence mauri has been considered while as far as is known there are no mahinga kai, wahi tapu and wahi taonga or urupa sites on the properties and none were identified during site visits by Ngai Tahu representatives.

- 7.3 The evidence of Dr Ryder and Dr Goldsmith is key in respect of any adverse impacts on mahinga kai species or what are sometimes referred to as taonga species. There are no adverse effects on fish species as far as the applications are concerned.

- 7.4 Policy 11 requires that in allocating water the effects on the tangata whenua values of Ngai Tahu be considered. As demonstrated earlier in my evidence this has been done.

- 7.5 Policy 32 requires that in considering the granting of consents for the taking of water from high natural character waterways that the adverse effects are no more than minor with particular regard to cultural matters such as mauri, the effects on ecosystems of mahinga kai species, sites of

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wahi tapu and wahi taonga. As demonstrated earlier in my evidence these cultural matters have all been addressed.

8. OFFICER'S REPORT

8.1 The Officer's report makes a number of general observations about adverse effects on tangata whenua values for all four properties and their associated consent application

8.2 As an example, for Ohau Downs:

Given that there are a number of submissions which identify cultural values, I cannot determine the scale of actual and potential effects on the cultural values of the area. The applicant has not provided any assessment on cultural values and there are outstanding submissions from runanga in opposition to this proposal.

8.3 It is the intent of this evidence to assess the respective applications against the known Ngai Tahu cultural values, the cultural issues identified during the consultation and as set out in the CIA and the Ngai Tahu approach as reflected in other relevant documentation such as the TRONT Freshwater Policy document.

8.4 I have considered all the applications against these criteria and my assessment is that provided the suggested mitigation proposals are put in place by way of appropriate consent conditions and incorporated into the respective FEMPs then the overall impact on cultural values of the proposed irrigation and associated infrastructure will be less than minor.

8.5 This assessment applies in respect of the Killermont Station applications to take water from the Ahuriri River, Manuka Stream and Frosty Gully stream. It is noted that one of these applications – for Frost Gully Stream – is a renewal of an existing consents.

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- 8.6 There is one further small issue in respect of the Frosty Gully application where as part of the cultural values consideration the Officer's report outlines an uncertainty as to whether fish can move freely between the upper and lower reaches of Frosty Gully via the present pond and dam. This issue therefore relates to the Ngai Tahu concerns about fish passage.
- 8.7 My understanding is that like Manuka Stream, Frosty Gully Creek is an ephemeral waterway for the majority of the year and only flows fully in flood conditions. I also note that the dam has been in place for over 25 years and the present situation has existed all of that time. It is thought that the brown trout population above the dam is a captured one but its very existence must mean that there is some movement between the two parts of the creek. Although it is also possible that adult trout present in the dam are spawning upstream. Some movement of fish upstream and downstream must be possible at certain times of the year when the dam is overtopped and this situation will continue under the renewed consent. Fish can move up and past the dam during high flow periods.
- 8.8 This matter is commented on in further detail in the evidence of Dr Goldsmith.
- 8.9 The Officer's Report comment in terms of adverse effects on tangata whenua values for the Killermont Station takes is:
- Given that there are a number of submissions which identify cultural values, I cannot conclude that the actual and potential effects on cultural values of the area will be minor.
- 8.10 Having considered those submissions and aligned them with the known cultural values my conclusion is that the effects on cultural values of the area will be minor.
- 8.11 I note that in respect of the consent applications for undertaking works in the bed of the Ahuriri River, the effects on water quality are considered to be minor and the Officer's Report is satisfied that effects on Tangata Whenua values is minor. I concur with that conclusion.

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- 8.12 The Officer's Report also notes that there are no sites of historical or cultural significance that might be affected by these works and that site is not within a Statutory Acknowledgement Area. As a precautionary measure the applicant is agreeable to the addition of an accidental protocol in the relevant consent condition as per Mr Kyle's evidence.
- 8.13 A similar conclusion of minor effects is reached in the Officer's Report in respect of Killermont Station discharges. Again I concur with that conclusion.
- 8.14 For Glen Eyrie Station the same comment as that made in paragraph 8.9 above is made here in respect of proposed works in the bed of Lake Ohau. Again I have considered the known cultural values and reached the conclusion that the likely effects are minor.
- 8.15 In reaching this conclusion I have taken into account the fact that Lake Ohau is within a SAA but I believe that the proposed works are of a nature that should have no adverse effects on the lake. I am reliant on the evidence of Mr McIndoe and others in reaching this conclusion.
- 8.16 I do not accept the Officer's Report statement on this point that because the lake is within an SAA the effects may be more than minor. It is illogical on the ground that location within an SAA does not mean that proposals are any less stringent in terms of their environmental aspects or that cultural values are considered in any lesser light.
- 8.17 I believe that for all four applications the standards set in terms of cultural values linked mitigation are such that the SAA factor is properly addressed.
- 8.18 For WHL Killermont this evidence will serve as the assessment of cultural values whose absence leads the Officer's Report to the conclusion that a determination as to the scale of effects of the proposed activity on cultural values "until I have heard from submitters".

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- 8.19 I have addressed the cultural issues raised by submitters in this statement. My conclusion is that from a cultural perspective, any effects are less than minor.
- 8.20 Also in respect of the WHL Killermont application to disturb the bed of the Ahuriri for the installation and maintenance of an intake structure, I note that the Officer's Report comments on the presences of a Moa Hunter camp some 300 metres away from the proposed work site. As discussed earlier in my evidence when dealing with possible wahi tapu sites, the site will not be disturbed by the proposed works and in any event, as mentioned previously, an accidental discovery protocol will be in place as a condition of consent.

9. CONCLUSION

- 9.1 My view is that the cultural values and issues raised in opposition to the proposed extension of irrigation within the Mackenzie Basin are, on analysis, mostly not applicable to the four applications under consideration here.
- 9.2 However those that are relevant have been comprehensively addressed in the consent conditions and in the FEMPs. In my opinion setting out the responses to the cultural issues in this evidence and giving effect to the measures to address them through the consent conditions and in the FEMPs demonstrates that the cultural values and issues have all received the proper consideration that they deserve.
- 9.3 My conclusion therefore is that there is no reason why the applications sought should not be granted.

Buddy Mikaere
October 2009

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APPENDIX 1

Buddy Mikaere Principal Buddy Mikaere and Associates

Summary Curriculum Vitae

Date of Birth: 19 January 1951

Citizenship: New Zealand

Education: BA (First Class Honours) Canterbury University
Diploma in Industrial Psychology Victoria University of Wellington

Membership: Council Member Bay of Plenty Polytech; Trustee/Board Member Diabetes
New Zealand, Auckland; Member Resource Management Law Association

Competence: I am a professional historian by qualification and specialise in Maori consultation and associated activities through my own companies Buddy Mikaere and Associates and Mana Taiao Consultants. For the past fourteen years I have facilitated Maori consultation for a large number of development projects working closely with government departments, local government, large corporate companies and many other clients mostly in the area of resource consents.

The work undertaken has been wide-ranging in nature but has largely revolved around infrastructure projects such as sub-divisions, marinas, wind farms, transmission and hydro electric projects and similar. Apart from cultural issues, these projects have inevitably involved dealing with water, transport and amenity issues and values.

The larger scale projects have involved the design and implementation of consultation plans with associated follow-up and implementation of consent conditions as necessary.

I have worked closely with a number of large Maori organisations including the Tuwharetoa Maori Trust Board, the Ngai Tahu Trust Board, Waikato Raupatu Lands Trust and the Wellington Tenths Trust and have an extensive network within the Maori world.

Prior to becoming engaged in consultancy work, I was Director of the Waitangi Tribunal and as such have an extensive understanding of Maori issues. I have undertaken the preparation of a number of research reports and is a published author in his specialist field of 19th century race relations.

I was the founding Chairperson of the Maori Business Network – Tamaki Makaurau and a founding Board Member of the NZ Universities Academic Audit Unit

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In 2003 I completed a three-year part-time teaching fellowship (at Associate Professor level) at Waikato University where I lectured in Iwi history and New Zealand history with an emphasis on the Maori perspective.

As part of my teaching programme I finished work in 2002 on a completely revised version of *Taonga Tuku Iho – the Encyclopaedia of Traditional Maori Life* – and which was published in that same year.

I have also completed several research reports for the Waitangi Tribunal. Since 1986 I have lectured part-time in History, Maori Studies, the Treaty of Waitangi and the Waitangi Tribunal, as well as in Management Studies at Auckland, Canterbury, Lincoln, Massey, Victoria and Waikato universities.

There are numerous links between my consultancy work and my activities as a professional historian, and in many of the cases I have been involved with, I am frequently asked to draw on my expertise in the latter to inform my consultancy work.

I have also served as an Adviser to the Foundation for Research, Science and Technology and as a Hearing Commissioner to the Far North District Council and spent seven years on the Board of the World Wide Fund for Nature.

In 2008 I completed the Ministry for the Environment's *Making Good Decisions* programme and is certified to undertake hearings work in the RMA area until June 2011.

I have been Project Manager and Research Director for over thirty Treaty claims, including the claims of a number of Tauranga Moana iwi and hapu. I led the research for my own iwi, Ngati Pukenga, and its claims in Hauraki and Tauranga. I am therefore familiar with treaty issues from a claimant perspective.

My present work involves large project responsibility for consultation with Maori on environmental and cultural issues and I have been involved in many such projects since 1995, firstly with legal firm Tunnicliffe, Walters and Williams, and then environmental consultants Mitchell Partnerships, until commencing on my own account in 1999.

I list below those projects (past and present) of relevance to the current hearing, because they dealt with issues such as wahi tapu, pa sites, water and water extraction issues and matters raised in section 6(e), 7(a) and 8 of the RMA. Those cases include:

- Auckland Women's Correctional Facility prison project for the Department of Corrections – Manukau City;
- Hampton Downs landfill project for Envirowaste Ltd – Meremere;
- Metrowater Wastewater discharge re-consenting project – Auckland;
- Ngarewa Oil Well project for Shell Todd Oil Services – Kapuni;
- Northport Marsden Point expansion project – Marsden Point;
- Pohokura Gas Well project for Fletcher Energy – Motunui;

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- Pohokura Gas Well project for Shell Todd Oil Services – Motunui;
- Pokeno Quarry project for Winstones Aggregates – Pokeno;
- Serenella Holdings Ltd – Sand mining project – Kumeu;
- South-Western Interceptor Sewage Pipeline project for Watercare Services – Wiri, South Auckland;
- Springhill South Auckland Men's Correctional Facility prison project for the Department of Corrections – Meremere;
- Tairua Marina Project for Tairua Marine Ltd Joint Venture – Tairua;
- Totara Developments Ltd – housing subdivision project – Paihia;
- Watercare Waikato River pipeline project;
- Watercare South West Interceptor project;
- Wiri Stonefields project for Land Information New Zealand – Wiri; and
- Viaduct Basin America's Cup Village Construction Project – Auckland.

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APPENDIX 2 – GAIL TIPA CIA

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APPENDIX 3

CIA Peer Review