



Cultural Impact Assessment – Peer Review

Prepared for Russell McVeagh on behalf of Mackenzie Water Research Ltd

By

Buddy Mikaere

1. Introduction

The purpose of this document is to peer review and comment on the relevant sections of the Cultural Impact Assessment ("CIA") prepared by Gail Tipa on behalf of Te Runanga O Ngai Tahu ("TRONT") as part of a comprehensive investigation into the impact of an additional 25,000 hectares of irrigation in the Mackenzie Basin and the Upper Waitaki Valley ("the project area.").

The intention of the review is to provide Mackenzie Water Research Ltd ("MWRL") with some insights into how the cultural impacts identified in the CIA might be addressed.

Findings/Executive Summary

There is a clear assumption that irrigation in the Mackenzie Basin will be for the purposes of expanding the acreage of land available for pastoral purposes. As I understand the TRONT position, such usage brings with it a myriad of issues which mainly relate to the discharge of water to land and the potential to thereby promote an increase in nutrients in groundwater flows and ultimately the Mackenzie and Upper Waitaki valley waterways. These issues are compounded by the disposal of dairy shed effluent and the increased usage of artificial fertilisers.

The increase in nutrients together with perceived detrimental changes in water quality and reduced water flows within the Mackenzie Basin, and in the Waitaki system in particular, has a potential impact on the river environment affecting flora and fauna habitat with a flow on effect for Ngai Tahu mahinga kai sites and an effect on taonga species such as eel.

It is evident from the CIA that the key cultural concerns relate to the water quality impacts that may result from an additional 25,000 hectares of irrigated land in the Upper Waitaki. MWRL has undertaken a Water Quality Study ("WQS") which has assessed the likely impacts on waterways from the proposed irrigation schemes. As part of that study, a set of mitigation measures have been proposed for individual applicants that will mitigate any water quality issues. Some of these on-farm mitigation measures include fencing off waterways, controlling fertiliser use and inserting fish screens.

Accordingly, the finding of this review is that the cultural impacts of the irrigation abstraction and activities flowing from that activity can be addressed through the implementation of the appropriate avoidance, remedial or mitigation techniques identified in the WQS. These techniques and measures should be implemented through consultation with TRONT and its constituent papatipu runanga.

In summary the conclusion of this review is that all the cultural impact matters identified in the CIA are capable of being addressed. However, the efficacy of that response relies heavily on the ability of the individual applicants and TRONT to work together to address the issues of concern.

I have set out at the end of this report a proposed consultation framework between TRONT and the applicants. This is in line with TRONT's proposal (section 6.5 of the CIA) for the establishment of a consultation forum.

2. Background

It is acknowledged by MWRL that the mana whenua¹ for the project area lies with Ngai Tahu. As part of its investigation of the cultural issues associated with the proposal, MWRL therefore commissioned Gail Tipa on behalf of Ngai Tahu and TRONT to prepare a "mana whenua" CIA report on the proposal.

The CIA forms part of the proposal documentation. The brief for the preparation of this review has been to extract and analyse the relevant content of the CIA document and provide a broad overview that:

- Identifies the cultural and other relevant issues raised
- Suggests responses as to actions required of individual applicants in addressing those issues
- Provides a draft accidental discovery protocol for project management consideration²

The review writer is experienced in dealing with cultural issues as detailed in a summary CV and list of relevant projects attached as Appendix 1.

3. Methodology

This review has been largely prepared as a "desk top" exercise.

As preparation for the review an examination has been undertaken of relevant material that is publicly available drawing on various reports and other documents available on line such as the Canterbury Natural Resources Regional Management Plan (2007). An examination of relevant material held in the Canterbury Public Library has also been helpful.

The writer also undertook a full day visit to the Mackenzie Basin and Upper Waitaki Valley observing the extensive development of dairying activities through the use of irrigation.

In terms of historical information the writer authored a biography of the prophet Hipa Te Maiharoa entitled: Te Maiharoa and the Promised Land. The book was published in 1988 and nominated for the New Zealand book of the year. One of the seminal events in the book was the occupation of land near Omarama in the Mackenzie Basin by the prophet and his followers. In undertaking research for the biography the writer gained a good understanding of the tangata whenua history of the project area.

¹ Literally, the right to speak for the land

² Draft document attached as Appendix 2

4. Issues

Section 5 of the CIA lists 27 Impacts. These relate to:

- Wetlands
- Changed patterns of flows
- Irrigation efficiencies
- Land/water interface and balance – the level and intensity of usage of land has changed
- Changes to river shape
- (Fish) Passage
- Catchment wide effects
- Changing land use as a result of irrigation
- Smaller aquatic resources neglected
- Impact on cultural landscape – cumulative effect
- Impacts of water takes and use upon natural character and indigenous vegetation
- Construction of the irrigation infrastructure
- Place names
- Water quantity
- Excessive abstraction of water
- Cumulative effect – what percentage of water could be made available to instream enhancements or restoration of degraded waterbodies
- Water table
- Degradation of water quality
- Impacts upon stream and riverbed health (stock access to waterways)
- Cultural effects resulting from the mixing of waters i.e. water taken in one catchment/sub-catchment and discharged back into a water body in another catchment/sub-catchment
- Collaborative opportunities
- Modifications to and the destruction of wahi tapu
- Modifications to the waterways and the resultant loss of habitat
- Changing land use – loss of habitat
- Loss of opportunities
- Loss of opportunity to participate
- Access (limitations on access to sites, resources and waterways)

Five important qualifications need to be taken into account before addressing these issues:

- The first is evident from the CIA and other relevant documentation and that is that Ngai Tahu hold the Mackenzie Basin and the Waitaki River catchment as an environment and landscape of significant importance in the spiritual and traditional sense. It should be clearly understood in considering the content of this review that these values have not been diminished by the passage of time or changes in land (and water) use or tenure.
- The second has already been alluded to and that is the suggestion by TRONT that a consultation forum or working party be created to facilitate the

processing of the cultural issues and concerns and to provide the basis for an on-going relationship. The forum should consist of the three large irrigator groups as represented by the Mackenzie Irrigation Company Ltd, TRONT and papatipu runanga representatives with its purpose being to address wider CIA concerns. However it is noted that many of the issues identified in the CIA require a specific response dependent on the circumstances of individual future irrigators.

- The further suggestion therefore is that in the short term a series of workshops be established to discuss how the concerns in the CIA can be addressed through the mitigation measures proposed by the WQS. Relevant CIA issues and individual responses can best be captured in individual Farm Management Plans. The writer strongly recommends such an approach and suggests that the series of workshops to be established by MWRL should involve the individual applicants, TRONT and papa tipu runanga representatives. The purpose being to discuss how the concerns in the CIA can be addressed through individual Farm Management Plans.
- Fourthly it is the writer's opinion that many of the CIA issues are not what are normally regarded as cultural in nature but are more aligned with general environmental issues that might have a particular cultural content. The treatment of mahinga kai is a good example. Where it is agreed that remedial or other action is needed to address environmental concerns then obviously issues relating to mahinga kai located in the vicinity or same stretch of waterway are included as a matter of course i.e. dealing with the issue in the widest sense also addresses the specific.
- Lastly, many of the issues raised in the CIA refer to "downstream" effects. However, taking the Waitaki River as an example, clearly the effects of the irrigation abstraction can only be considered in respect of the waterways and catchment above Lake Benmore. Below Benmore the state of the river is governed by the resource consents held by hydro generators such as Meridian Energy Limited. The applications presently being advanced by Meridian in the lower Waitaki River and the cultural issues raised in response are irrelevant as far as the current irrigation proposals are concerned. Neither MWRL nor its stakeholders exert any direct influence over those proceedings.

Impact 1: Wetlands:

At paragraph 5.2 the CIA states that for the protection of remnant wetlands, no additional irrigation is supported in the Ahuriri; catchments feeding into the main glacial lakes or the Ohau catchment; specifically shown on the plans provided. Restoration of streams and wetlands in the Tekapo and Pukaki basins is required prior to approval before increases in irrigated areas in these two areas will be supported. Degradation in these catchments is readily apparent. Protection for aquatic habitats of Ahuriri Delta and the Haldon Arm of Lake Benmore is required. No supporting information is provided as to why this particular stance is taken.

Response:

Except for the fact that the wetlands mentioned are asserted to have been mahinga kai or food gathering areas in the past, this is not a cultural issue per se. The issue can therefore be addressed from a global perspective and the MWRL WQS report on the effects of intensified agricultural land usage is particularly relevant in this respect.

That report establishes thresholds aimed at preserving environmental quality and avoiding any adverse effects arising from irrigation and subsequent farming activities. The intensified agricultural land usage report is particularly helpful in outlining a range of proposed remedial and mitigation measures.

The key to these measures is the suggested requirement for the preparation of Farm Management Plans and the selection of appropriate measures to meet individual circumstances. These management plans are seen as being not just sensible/best practice in terms of the wetlands issue but also for addressing many of the other issues discussed later in this review.

Impact 2: Changed patterns of flows

The issue here is around concerns that seasonal flow patterns will be changed e.g. long periods of constant flow or high summer flows with attendant issues such as damage by stock, turbidity, erosion and bank slumping, impact on ecology of the "smoothing" of water flows. The CIA further seeks discussions about protection initiatives for smaller aquatic resources such as fencing, riparian planting etc.

Response:

Again this is not a cultural issue per se but is an issue capable of being addressed through individual Farm Management Plans.

Impact 3: Irrigation efficiencies

The CIA says TRONT will not support a border dyke system and expresses a preference for spray irrigation to maximise the efficient use of irrigation water.

Response:

This too is not a specific cultural issue. However, it can be addressed through scheme planning and "on farm" arrangements to suit individual circumstances. It is appreciated that delivery of bulk water to a point where it can be drawn on by spray irrigators might present some engineering difficulties without a dyke/water race system.

Impact 4: Land/water interface and balance – the level and intensity of usage of land has changed

The diversion of water to irrigation will result in ecological change. Provision of water for irrigation is regarded as a secondary priority with the first priority being maintenance of ecosystems.

Response:

The cultural component of this issue relates to the potential for downstream effects on mahinga kai and taonga species. Addressing this concern is at the heart of the proposal i.e. is it sustainable to the extent that the various activities do not have a detrimental ecological impact? The best response lies in being able to demonstrate that this is the case or alternatively advances a compelling suite of off-setting mitigation options. The WQS reportage is very helpful in this respect.

Mitigation in this case may involve mahinga kai enhancement work such as the removal of weed species (gorse, broom and blackberry), improvement in access or assistance with access arrangements over private land and the funding of studies or monitoring of taonga species. Any response, however, is restricted to the Upper Waitaki upstream of Lake Benmore.

Impact 5: Changes to river shape

This concern relates to changes in river morphology as a result of lowered flows. It is not a cultural issue although obviously environmental impacts, as discussed in the previous section, have the potential to affect ecological values. The concern is for the effect on the Upper Waitaki and what impact earthworks or maintenance activities might have.

Response

As for the previous section the cultural concerns are linked to the potential impact on mahinga kai sites. There needs to be a clear and precise communication on the nature and extent of any earthworks and other infrastructure construction activities and a demonstration that the morphology of the Waitaki will not be affected. Again, this should only relate to the Upper Waitaki upstream of Lake Benmore.

Impact 6: Passage

The cultural concern in respect of this issue relates to the impact on customary fisheries, native fish species and the invertebrate populations on which fish depend for food. Irrigation infrastructure is seen to disrupt natural flows and may present barriers that could impede seasonal fish passage for migration and dispersal or in response to low flows.

Response

The issue can be addressed through irrigation scheme designs in the first instance. Every dam installation that blocks off a water course needs to make provision for fish passage and individual intakes need to incorporate a screening device to prevent fish entry. Ecological evidence needs to also be provided to demonstrate that the proposed infrastructure will not impact the various fish species in terms of habitat and movement. These issues must be addressed by individual applicants.

Impact 7: Effects felt throughout the catchment

The concern is for the deterioration of river reaches downstream of the proposal and seeks enhancement of the river environment. The use of diverted water for instream ecosystem values e.g. re-watering shallow depressions and lagoons is suggested. Further consultation with the individual applicants is proposed.

Response

Impact 7 appears to have been derived from earlier issues relating largely to downstream effects on the Waitaki River. However as indicated earlier in this report, issues need to be confined to the upper river – above the Benmore Dam – which is potentially affected by the irrigation proposal.

This is because river flows below Lake Benmore are subject to the various hydro generation schemes on the river which require the maintenance of minimum storage lake levels for operational reasons and also have a requirement for the maintenance of particular flow regimes.

Except where such specific areas within the proposal area can be identified – and the CIA does not do this - the use of diverted water for maintaining instream ecosystem values and similar restorative work such as rewatering shallow depressions and lagoons appears to refer to areas below Lake Benmore and therefore outside the proposal area.

As a mitigation option the use of diverted water in any identified areas within the Mackenzie Basin for these purposes is reasonable and might be achievable as part of individual management plans. For example opportunities to re-water depressions and wetlands as a potential secondary treatment for farm discharges of treated wastewater might be a possibility. However, this is clearly not the main thrust of the Impact 7 issue.

Impact 8: Changing land use as a result of irrigation

The main concern is the use of water to enable dairy farm conversions in the Waitaki/Mackenzie Basin which TRONT say they will strongly oppose. The assertion is that "Almost without exception, the conversion over recent years of dry land farms to dairying has brought with it a host of adverse environmental effects and has resulted in the significant degradation in the quality of our rivers, lakes, streams and wetlands. This has impacted seriously on the cultural health of our waterways and

has resulted in the further loss of access by tangata whenua to mahinga kai sites and resources."

While the default position of TRONT is "to vigorously oppose all consent applications to take, divert, discharge and use water so as to enable conversion to dairy farming", that is qualified by the statement that "Before Ngai Tahu will be prepared to depart from this position, it will need to be convinced that suitable measures can be implemented at both the on-farm and catchment level that will be capable of avoiding and/or mitigating the site-specific and cumulative adverse effects that will arise as a result of conversion to dairying."

Response

In describing Impact 8 the CIA obviously draws on previous downstream experience with irrigation where farming irrigation activities abstract and discharge to the same waterbody. The CIA does not take into account the unique set of circumstances that this irrigation proposal encompasses, i.e. it will operate within what is almost an "enclosed system" with the only outlet being via the Waitaki River. In other words the hydro infrastructure provides a "choke point" and therefore above that "choke point" there is an opportunity to put in place measures to ensure there are no adverse effects or contributions towards the degradation of downstream water quality.

So that they can be addressed, cultural health issues therefore need to be identified above the "choke point." What is needed is a full list of specific mahinga kai sites in the Mackenzie Basin so that an assessment can be made as to how these sites have been affected by development to date and in terms of loss and access what can be done to avoid further encroachment or to provide redress where possible.

Once this exercise has been done then any issues can be addressed through the formulation of Farm Management Plans with the individual applicants depending on the particular circumstances of each case.

Impact 9: Smaller aquatic resources neglected

The concern relates to the impact of irrigation on small streams, lakes, lagoons, tarns etc, within the Mackenzie Basin catchment as a result of reduced flows, obstruction of migratory pathways, habitat destruction, use of agrichemicals, changed land use (dairy conversions) and access rights.

Response

Measures to protect aquatic resources firstly require the identification of those resources and then ensuring through individual management plans that matters such as the maintenance of minimum flows, provisions for fish passage, the setting and observation of application rates for agrichemicals etc., are put in place.

Impact 10: Cumulative effect

This concern is expressed on behalf of the papatipu runanga in their role as kaitiaki with the concern being for the cumulative effect of water abstraction for irrigation purposes and the serious ecological imbalances that have resulted. There is a desire on behalf of the runanga to be advised of the means by which the cumulative effects have been assessed.

Response

Again it is obvious that the issue arises out of the "downstream" or other waterways experience. Because of the enclosed system nature of this proposal, the area subject to any cumulative effects is restricted and this important point needs to be appreciated in the consideration of the issue. The cumulative effect in this respect is gauged by consideration of the current irrigation activities within the Mackenzie Basin and the likely effects of the present proposal.

The detail of any such effects within the Mackenzie Basin – including an assessment of the economic impact - is contained within the various WQS studies and reports and these documents should form the basis for a discussion with TRONT/papatipu runanga as per the forum/working party or workshops proposed earlier.

Impact 11: Impacts of water takes and use upon natural character and indigenous vegetation

The concern relates to the clearance and replacement of native vegetation.

Response

It is understood that within the Mackenzie Basin there are areas of ecological significance containing rare and unique plant life as identified by the Department of Conservation. Mitigation might consist of the preservation of some of these areas within farms or possibly around infrastructure (such as pumping stations) or within riparian strips, through the creation of reserves or heritage areas. Clearly this is a matter that could be addressed in the individual Farm Management Plans.

Impact 12: Construction of the irrigation infrastructure

This issue concerns the potential to destroy sites through the construction of irrigation infrastructure. The sites are identified in Appendix 3 of the CIA however it is believed that there are no recorded sites within the project area.

Response

TRONT should be asked to confirm (or otherwise) the existence of sites through the proposed consultation forum/working party. It then becomes a matter of either avoiding the sites present or remedying or mitigating any impact on them. An accidental discovery protocol should also be offered as a precautionary measure.

Impact 13: Place names

Displacement or loss of original places names is a concern to TRONT.

Response

This is not an issue that can be specifically linked to the proposal and there are other forums already established such as the New Zealand Geographic Board or District Plan provisions to deal with the historical component of the issue. Any new names for say, infrastructure features, might be a consideration but that would need to come through the establishment of a working relationship between TRONT and the various parties. There are land owner considerations with this approach.

Impact 14: Water quantity

The TRONT position links water quantity issues to mauri (described as being life, energy, vitality and movement). According to the CIA a healthy mauri is reflected in a range of aquatic habitats supporting diverse kaiora.³ Issues concerning mauri, relate to changes to flow regimes; catchment changes; excessive abstraction; interception and diversion of natural receiving waters and possible degradation of water quality. TRONT supports the Waitaki Allocation Plan limit of 275 million cubic metres per year above the Waitaki Dam.

Response

Formulating a response requires an understanding of the mauri concept. Mauri in its traditional context only ever referred to the protection of a natural resource by spiritual means. But nowadays mauri has become a contentious subject because the concept itself has been subject to enormous evolution and is often misinterpreted by those with an incomplete understanding of the subject.

In traditional times the whole of the natural and cultural world and everything possessed its own essential vitality: people, crops, fish, forests, birds, land, ocean, rivers, streams and lakes, stars, and natural phenomena such as lightning, wind and rain. This essential vitality was known as the hau. The spiritual protection of the hau would be enhanced by its ritual placement within an object such as a stone – a mauri - which also had ancestral *atua* – gods - assigned to its guardianship as a further protection. The mauri was often hidden away as a further safeguard.

The mauri of a river or lake therefore would relate to the most important resource contained within it – fish. The task of a "river" mauri would be to ensure the ongoing health of the fishery and associated human activities.

Because the traditional rituals associated with mauri are no longer practised there has been a recasting of mauri into a new role of being a "life force" present in all things to the extent that rather than being the means to an end it has become the end itself. This approach reflects an evolved or modern concept of the mauri of the natural world and is a concept that has gained new life, as environmental issues have gained in importance. It is an approach encouraged in part by government attempts to redress past injustices and which finds expression in the recreation of a

³ Healthy food or foods or healthy eating - it is not a traditional term but has recently become fashionable.

role for Maori in the management of their traditional lands, cultural treasures and the environment. This role has required Maori to articulate the values they attach to these possessions.

Against this background the mauri issue, as advanced by TRONT, is probably best explained if we substitute the word "health" for mauri; a term which they also use in the CIA. What constitutes destruction, desecration or damage to the mauri of waterways therefore becomes an exercise in subjectivity. The effect on the mauri of the waters thus aligns with the generally accepted environmental and sustainable management factors with which all of us involved in the RMA process are familiar.

What is necessary to sustain the mauri, the health of the waterways, now becomes a manageable proposition because the requirements to maintain or even enhance that sustainability are measurable and mitigation and avoidance strategies can be formulated and given effect. More importantly they can be aligned with the generic of wider community view of environmental protection and sustainability.

Given the nature of the irrigation proposal there is no one solution. Rather it is the cumulative effect of the individual management plans and the role they play in ensuring that there is no degradation in water quality as a result of irrigation activities. Logic suggests that if there is no impact on water quality then there is no impact on the mauri. Further discussion on the issue within the proposed consultation forum/working party would be beneficial.

It is noted that in section 5.1 of the CIA the following statement is made:

“While it may not be possible to avoid remedy or mitigate the impacts of irrigation on the spiritual values of TRONT, discussions with the three papatipu runanga need to occur as soon as practicable“.

Impact 15: Excessive abstraction of water

TRONT believe the North Otago and South Canterbury catchments to be over allocated and that the existing minimum flows are too low. Should the allocations applied for fit within the WAP then there is concern about the perceived adverse effects of irrigation.

Response

Logically the effects of the proposed project abstraction are limited to the impact on waterways within the Mackenzie Basin catchment and hydro storage lakes such as Benmore, Pukaki and Tekapo. Flows below those points are governed by consented flow regimes. However it is noted that Ngai Tahu supports the WAP regime and as the irrigation proposal must comply with that regime the issue is considered to be addressed.

Impact 16: Cumulative effect (re-affirming Impact 10)

This issue asks the question: What percentage of water could be made available to instream enhancements or restoration of degraded waterbodies?

Response

The earlier response in the consideration of Impact 10 is applicable. The question is restricted to the Mackenzie Basin and there needs to be a specific identification of the areas concerned. Furthermore this is an issue that will be addressed through the minimum flow provisions of the WAP regime to which TRONT is a party.

Impact 17: Water table

This issue involves concerns relating to water tables, specifically falling water tables, within the project area. A further concern is the implementation of good irrigation management and practice.

Response

This is a technical issue and one that is addressed in the WQS.

Impact 18: Degradation of water quality

This issue is perceived to be one of the major concerns in the CIA. While there is a cultural component (downstream effects on mahinga kai; taonga species habitat, customary fisheries) this is in fact a generic wider community concern that arises in all cases where run-off from agricultural land and wastewater discharge from farming activities is concerned. It is noted that this is an issue that arises post-abstraction.

Response

There are numerous examples of remedial, mitigation and avoidance options that can be put in place to address this issue. Working with TRONT in this respect represents a very good opportunity to work with the iwi and papatipu runanga in helping to formulate farm plans and strategies or fresh initiatives that might make environmentally sustainable farming in the Mackenzie a national model. The WQS exercise has been very helpful in this respect by the identification of a range of practical mitigation measures.

Impact 19: Impacts upon stream and riverbed health resulting from stock access to waterways

The concern in the CIA is that stock should be excluded from all waterways.

Response

Stock exclusion measures are suggested as a mitigation measure in the WQS.

Impact 20: Cultural effects resulting from the mixing of waters i.e., water taken in one catchment/sub-catchment and discharged back into a water body in another catchment/sub-catchment

TRONT suggest discussion on this issue.

Response

This should be an agenda item for the proposed discussion consultation forum/working party. It is noted that this issue has been put before the Environment Court on a number of occasions and is yet to gain traction within that forum. The basic reason is because it is a "modern" cultural issue and has no traditional basis. Examples where this issue has been raised and tested are the Tongariro Power Development scheme, the Glenbrook steel mill, the Auckland Waikato pipeline and the Auckland water supply diversion schemes in the Hunua and Waitakere ranges.

Impact 21: Collaborative opportunities

This issue highlights concerns that out of stream user interests take precedence over river (waterways) care. TRONT want to see ecosystem enhancement initiatives.

Response

This is another agenda item for discussion and fits with the general tenor of earlier identified discussion items. However the whole point of the WAP regime and the provisions of the RMA are to ensure that there is a balance between development and the sustainable management of natural resources. The WQS contains a detailed assessment of the potential cumulative effects of the proposed irrigation.

Impact 22: Modification to and the destruction of waahi tapu

The concern is that the recorded waahi tapu sites in the Upper Waitaki, listed in Appendix 3 of the CIA, may be affected by infrastructure construction activities.

Response

TRONT should be invited to advise of any other unrecorded sites. The assumption is that any recorded sites will be avoided by project infrastructure as a matter of course. The instigation of an accidental discovery protocol as a precautionary measure is recommended (this is attached as Appendix 2).

Impact 23: Modifications to the waterways and the resultant loss of habitat

The issue is in respect of downstream effects on Waitaki River mahinga kai and therefore cultural values and resources.

Response

This issue is largely addressed earlier in this assessment. As the abstraction is limited to the Mackenzie Basin, the assumption is that there is no change or impact to the Waitaki River (as an example) below Lake Benmore as the flow regimes and

mahinga kai impacts are already addressed in setting the consents for the river below that point. The only possible impact might come in an incremental change to water quality within the river but measures already discussed (e.g. see Impact 18;) address this aspect.

Impact 24: Changing land use – loss of habitat

The concern is for the impact of irrigation and change of land use on mahinga kai habitats and species. These concerns are again drawn from the lower Waitaki experience. TRONT seek reassurance that if the proposal assists in facilitating dairying activities then the matters raised under Impact 8 are to be addressed.

Response

As indicated earlier in this report, the impact must relate to those areas above Lake Benmore or within the Mackenzie Basin. If these mahinga kai can be identified then that would pave the way for taking appropriate avoidance, remedial or mitigation actions through individual management plans. However, without the identification of the specific locations any such consideration is not possible.

Impact 25: Loss of opportunities – [Ahuriri Delta and surrounds]

TRONT say they have flagged the Ahuriri Delta and the Haldon Arm of Lake Benmore as being likely mahinga kai enhancement sites and do not wish to see "...new irrigation proposed for these areas degrade existing habitats and deny opportunities to undertake enhancement."

Response

The first step is for TRONT to clearly identify any such sites and to outline what is proposed in terms of enhancement. Where it can be shown that such sites are affected by irrigation activities then the sensible response would be to incorporate avoidance or mitigation measures into the relevant farm environmental management plans.

The assumption is that any such sites are likely to be located on Crown-owned land rather than private land.

Impact 26: Loss of opportunity to participate

The concern is for TRONT's fundamental duty to protect the natural world (kaitiakitanga) which they believe has been compromised by irrigation. They seek participation in the management of the waterways.

Response

There is insufficient information on which to base a response but the obvious starting point is with the Regional Council and its policies in respect of iwi participation in waterways management. Beyond that process, there needs to be an understanding of what is being sought by TRONT and making this concern an agenda item for the suggested consultation forum/working party process might assist. Dependent on the outcome of that discussion measures to meet the concern might include the development of a monitoring report distribution arrangement as the basis for an annual meeting with individual applicants.

Impact 27: Access

The concern is for the loss of access to traditional sites and pathways. TRONT ask that access for papatipu runanga be unimpeded or where possible enhanced.

Response

This is a further agenda item for the consultation forum/working party. It would be helpful again if these sites and areas were specifically identified so that the scope and scale of the issue might be clearly understood. That would then open the way for seeking some practical resolution, should that be needed, which does not affect farming activities.

Waitaki Allocation Plan

It is noted that TRONT support the provisions of the WAP and specifically note the following policies as being relevant to their position:

Policies 1, 4, 9, 11, 12(c) and (f), 13 and 18

5. Conclusion

As discussed in the introduction to section 4 of this report, all the issues raised in the CIA can generally be addressed by the institution of a proactive consultation process between the individual applicants, TRONT and its constituent runanga.

The necessary follow-up actions are a shared responsibility but it seems sensible that MWRL, as a preliminary step, set-up a series of workshops to discuss the farm measures proposed by each applicant through the development of individual farm environmental management plans.

Some of the workshop agenda discussion items and available mitigation measures that may be included in the management plans to address TRONT concerns are:

- Identification of sensitive areas to TRONT
- Fencing off waterways to restrict livestock access.
- Fencing off and enhancing wetlands.

- Agreed protocols if koiwi or other taonga are discovered (as set out in Appendix 2).
- Management of border dyke irrigation.
- Constructing fish screens to ensure provision for fish passage.
- Maintaining and fencing off riparian margins.
- Management of effluent application in relation to identified sensitive areas.
- Management of fertiliser application in relation to identified sensitive areas.

The formulation of individual Farm Management Plans is dependent on the provision of the additional information by TRONT as identified in the response sections of this report. That exercise is seen as being a priority as it will be a pre-requisite to the proposed workshops.

The onus will be on individual applicants to be able to demonstrate that their proposed abstraction is sustainable and will not be detrimental to the environment. In other words to satisfy the cultural concerns, the application needs to satisfy all the generic or wider community environmental concerns that such a proposal would generate. The same applies in respect of the use of that water in terms of discharge to land and agricultural use.

In turn the workshops should assist in the formulation of the individual Farm Management Plans by associating issues with particular properties.

In overall terms, the best response to the cultural issues is to ensure that the full range of expertise normally associated with water abstraction/discharge proposals is harnessed with the focus being on being able to comprehensively demonstrate that what is proposed represents a sensible sustainable use of the water resource.

Buddy Mikaere

May 2009

Appendix 1

Buddy Mikaere

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 and Board Member Diabetes New Zealand (Auckland);
Member Diabetes Business Group;
Member Resource Management Law Association
Principal Mana Taiao Consulting
Principal Buddy Mikaere and Associates

Competence: Buddy Mikaere specialises in Maori consultation and associated activities through his own companies, Mana Taiao Consulting and Buddy Mikaere and Associates. For the past ten years he has 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.

He is regarded as the country's leading practitioner in his specialist area of expertise i.e. dealing with cultural issues arising from resource consent applications and has appeared as an expert witness on many occasions.

Buddy works 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 Tenth Trust. He has an extensive network within the Maori world.

Prior to becoming engaged in consultancy work, Buddy was Director of the Waitangi Tribunal and as such has an extensive understanding of Maori issues.

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

Buddy has also served as an Adviser to the Foundation for Research, Science and Technology and as a Hearing Commissioner to the Far North District Council.

Through Mana Taiao Ltd Buddy has moved, in recent times, into the spheres of industrial research and technology.

List of previous wastewater and other relevant projects: (role has been that of consultation facilitator, cultural impact assessment writer and cultural advisor).

Waikato Pipeline project for Watercare Ltd – North Waikato/South Auckland

Northwest Interceptor project for Watercare Ltd – South Auckland

Project West for Watercare Ltd – West Auckland

Biosolids project for Living Earth Joint Venture – Wellington

Tongariro Prison Wastewater Treatment Plants – upgrade projects - (spray irrigation and aeration ponds) for Department of Corrections – Turangi

Waikeria Prison Wastewater Treatment Plant and oxidation pond upgrade for Department of Corrections – Waikeria (Te Awamutu)

Wastewater and stormwater disposal proposals for Metrowater - Auckland

Tauranga City Wastewater Treatment Plant upgrade and resource consents renewal project for Tauranga City Council – Tauranga

Hamilton City Wastewater Treatment Plant upgrade and resource consents renewal project for Hamilton City Council – Hamilton

Whangamata Wastewater Treatment plant upgrade and resource consents renewal project for Thames Coromandel District Council – Whangamata

Puketutu Island bio-solids disposal project for Watercare Ltd – Mangere (current)

Most other projects that Buddy has been associated with have had a water supply or wastewater disposal/treatment or leachate treatment and disposal component attached to them.

APPENDIX 2

PROTOCOL FOR DEALING WITH KOIWI OR TAONGA UNEARTHED DURING CONSTRUCTION OPERATIONS

For the purpose of building and construction activities at the Project site

Introduction

1. [The applicant] proposes the abstraction of water from waterways within the Mackenzie Basin, South Canterbury, sufficient to irrigate [] acres. It is likely that some earthworks and other construction activities will be required in giving effect to such a proposal.
2. The Mackenzie Basin lies within the traditional rohe of Ngai Tahu as represented by Te Runanga O Ngai Tahu and the papatipu runanga located at Arowhenua, Waimate and Moeraki.
2. Pursuant to of the Resource Management Act 1991, MWRL has consulted with the runanga on the details of proposal activities and the question of resource consents for the continued use of the site.
3. [The applicant] and the runanga have agreed that, in the event that koiwi or other taonga are unearthed during the course of operations, the parties should adopt a protocol for dealing with this matter.
4. Accordingly, this Protocol records those procedures that have been agreed between [the applicant] and the runanga.

Definitions

5. In this Protocol the following terms shall have the meanings set out herein:

"Koiwi" means human remains such as skeletal material.

"Taonga" means cultural artefacts such as implements, weapons or decorations traditionally and historically utilised by tangata whenua and includes parts or the remains thereof.

Unearthing of Koiwi or other Taonga within the Project site

6. The following procedure will be adopted in the event that koiwi or taonga are unearthed or are reasonably suspected to have been unearthed during the course of construction and other activities.
7. Immediately it becomes apparent or is suspected by workers at the site that koiwi or taonga have been uncovered, all activity at the site will cease.
8. The plant operator will shut down all machinery or activity immediately, leave the area and advise his or her Supervisor of the occurrence.
9. The Supervisor shall take steps immediately to secure the area in a way that ensures that koiwi or taonga remain untouched as far as possible in the circumstances and shall notify the Project Manager.
10. The Project Manager will notify the New Zealand Police (in the case of koiwi) and the relevant runanga representatives that it is suspected that koiwi and/or taonga have been uncovered at the site.
12. The runanga representatives will contact the appropriate kaumatua to act on their behalf in this matter in order to guide and advise [the applicant] and any other parties as to the appropriate course and will immediately advise the Project Manager of the identity of such kaumatua and such other details as may be appropriate in the circumstances.
13. The Project Manager will ensure that staff are available to meet and guide kaumatua and police (as appropriate) to the site, assisting with any requests that they may make
14. If the kaumatua are satisfied that the koiwi or taonga are of Maori origin the kaumatua will decide how they are to be dealt with and will communicate

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such decision to [the applicant], NZ Police and such other parties as are considered appropriate.

15. Activity on site will remain halted until the Police and the kaumatua have given approval for operations to recommence.
16. The Project Manager shall ensure that kaumatua are given the opportunity to undertake karakia and such other religious or cultural ceremonies and activities at the site as may be considered appropriate in accordance with tikanga Maori (Maori custom and protocol).

[signed]

[date]